

EPA Region 1 RAC 2 Contract No. EP-S1-06-03

Via electronic transmittal

MA-4292-2017-D

February 20, 2017
File No. 80107

U. S. Environmental Protection Agency, Region 1
Ms. Leslie McVickar, Remedial Project Manager
5 Post Office Square
Mail Code: OSRR07-4
Boston, Massachusetts 02109-3912

Subject: Preliminary Soil Data Summaries and Figures
Keddy Mill Superfund Site, Windham, Maine
Remedial Investigation
Task Order No. 107-RICO-01JK

Dear Ms. McVickar:

Enclosed for your review is a draft letter report summarizing data for background and onsite surface and subsurface soil samples. Select chemicals of interest were graphically mapped to depict their distribution at the Site.

Should you have any questions or comments, please contact me at 978 -703-6003, or
lchu@nobiseng.com.

lchu@nobiseng.com
g.com

Digitally signed by
lchu@nobiseng.com
DN: cn=lchu@nobiseng.com
Date: 2017.02.20 14:29:53 -05'00'

Sincerely,
NOBIS ENGINEERING, INC.

Attachment

c: File No. 80107.03 (w/attach.)

SUMMARY OF SOIL ANALYTICAL DATA

KEDDY MILL SUPERFUND SITE

WINDHAM, MAINE

FEBRUARY 2017

1. INTRODUCTION

Soil samples were collected during May through October, 2016, from background and onsite locations as part of the Remedial Investigation (RI) for the Keddy Mill Superfund Site (Site) in Windham, Maine. This memorandum provides a preliminary summary of soil analytical results for review and discussion with the U.S. Environmental Protection Agency (EPA) and the Maine Department of Environmental Protection (ME DEP).

Surface and subsurface samples were collected at the Site to provide sufficient data to support the risk assessment and to provide delineation of contaminant nature and extent. Only surface soil samples were collected from the three background locations. Surface soil is considered to be 0 to 6 inches below the ground surface while subsurface soil include samples collected deeper than 6 inches. The soil samples were collected for the analysis of volatile organic compounds (VOCs), semi-volatile organic compounds (SVOCs), pesticides/polychlorinated biphenyls (PCBs) [Aroclors], PCBs as congeners and homologues, and metals. Select samples were analyzed for hexavalent chromium and for polychlorinated dibenzo-p-dioxins (PCDD) and polychlorinated dibenzofurans (PCDF). In addition, a set of surface and subsurface soils were collected from the Site for the analysis of per- and polyfluoroalkyl substances (PFAS) compounds.

The chemical analyses were performed by EPA Contract Laboratory Program (CLP) laboratories for organic compounds, inorganics, chlorinated biphenyl congeners (CBCs), and PCDDs/PCDFs. Non-CLP analyses (hexavalent chromium and PFAS) were performed by commercial laboratories subcontracted by Nobis.

All chemical data, except PCB congeners/homologues and PCDD/PCDF, were validated by Nobis Engineering, Inc. in accordance with these guidances: *EPA New England Environmental Data Review Supplement for Regional Data Review Elements and Superfund Specific Guidance/Procedures* (April 2013) and USEPA's *National Functional Guidelines for Inorganic Superfund Data Review* (August 2014). The laboratory results were validated through a Tier 1 Plus Mod data review. The PCB congeners/homologues and PCDD/PCDF data were validated by the EPA ESAT contractor.

Laboratory analytical results that have verified data quality are suitable for use in EPA risk assessments, and to delineate contaminant nature and extent. Verified data quality requires approved analytical methods, laboratory QA/QC procedures, and data review procedures. Analytical data generated under this RI meet these requirements and are suitable for use in CERCLA risk assessments.

2. OTHER ANALYTICAL DATA

As part of a 2012 CERCLA Site Inspection, EPA's START contractor collected shallow soil samples (0 to 2 feet depth) that were used to help score the site under the Hazard Ranking

System (HRS) and support listing to the National Priority List (NPL). Chemical analyses for VOCs, SVOCs, pesticides/PCBs (Aroclors), and metals were performed by EPA CLP laboratories. The data were validated by Nobis in accordance with EPA guidances described above. The SI data are of sufficient quality for use in CERCLA risk assessments and for delineation of contaminant nature and extent.

Soil samples have been collected and analyzed for previous investigations for various property owners. However, the data quality could not be verified and therefore data could not be used for a risk assessment. In 2011, 149 samples were collected by the MEDEP and Summit Environmental Consultants, Inc., which samples were analyzed in the EPA's Field Mobile Laboratory using a Region 1 Field Method. Because the data quality for a field method is lower than the RI and SI samples, the 2011 sample results cannot be used for a risk assessment. However, these samples can be used to help delineate the nature and extent of contamination.

3. DATA SUMMARIES AND CRITERIA COMPARISONS

For this initial evaluation, the RI and SI results were combined and summary statistics were developed to provide an overall data screening. Table S-1 through S-3 present the summary statistics for background, surface soil, and subsurface soil samples, respectively.

The data were screened against these criteria: EPA's risk-based Regional Screening Levels (RSLs) for the residential and the commercial/industrial exposure scenarios and the Maine Remedial Action Guidelines (RAGs) for the residential and construction worker exposure scenarios.^{1,2} For each detected chemical, the summary statistics identify the number of sample results that exceeded the RSLs and the RAGs.

Soil sampling locations for select chemicals of interest are depicted in Figure 1 through 10. Chemicals in soil with a high frequency (10% or greater) of exceedances of the Maine RAGs were selected for these preliminary graphical depictions.

3.1 Background Soil Results

Table S-1 presents the summary statistics for the three background locations and sample locations are depicted in Figure 9. These locations included a former school property in Windham, a Gorham recreational area, and an unused area of the Maine Correctional Center in Windham.

VOCs - Review of S-1 indicates that several VOCs (2-butanone, acetone, and methyl acetate) were frequently detected in these samples. However, neither RSLs nor Maine RAGs were exceeded. It is unclear what the presence of these VOCs may mean. Acetone and 2-butanone can originate from natural sources including metabolic byproducts of plants and insects, and fires. Methyl acetate can originate from natural sources.

¹ EPA Regional Screening Levels, May 2016 (source: <https://www.epa.gov/risk/regional-screening-levels-rsls-generic-tables-may-2016>).

² Maine Remedial Action Guidelines (RAGs) for Sites Contaminated with Hazardous Substances, Feb. 5, 2016. (Source: http://www.maine.gov/dep/spills/publications/guidance/rags/ME-RAGS-Revised-Final_020516.pdf).

SVOCs – Several polycyclic aromatic hydrocarbons (PAHs) were detected in the background soil samples exceeding the EPA residential RSL. However, none exceeded the Maine RAGs or the commercial/industrial RSLs. Benzo(a)pyrene and other PAHs that frequently exceeded the residential RSLs are typically combustion byproducts.

Pesticides – Only a few pesticides were detected, none exceeding the RSLs or the Maine RAGs.

PCBs – PCBs were detected in every sample; however, none exceeded the RSLs or the Maine RAGs.

Dioxins/Furans – PCDDs and PCDFs were detected in both samples. However, none exceeded the RSLs or the Maine RAGs. PCDD and PCDF results, when converted to the toxicity equivalent (TE) of 2,3,7,8-tetrachlorodibenzo-p-dioxin (TCDD), none of the results exceeded the RSLs or Maine RAGs.

Metals and Inorganics – A number of metals were detected in the background samples with a few exceeding the residential RSLs. However, only arsenic [Figure 9] frequently exceeded the commercial/industrial RSL and Maine residential RAGs. The Maine RAGs has an undeveloped background arsenic concentration of 16 mg/Kg, which is only exceeded by two of the 20 background samples.

3.2 Surface Soil Results

Table S-2 presents the summary statistics for surficial soil samples at the Site. Sample locations for select chemicals are depicted in Figures 1, 3, 6, 7, and 10.

VOCs – A few VOCs were detected in surface soil samples, but none exceeded the RSLs or Maine RAGs.

SVOCs – Several PAHs were detected in the surficial samples exceeding the EPA residential RSL. Only two PAHs (benzo(a)pyrene [Figure 1] and dibenz(a,h)anthracene) exceeded the commercial/industrial RSLs or the Maine residential RAGs. PAHs have been associated with ash and slag present throughout the Site.

Pesticides – No pesticides were detected in the surface soil samples.

PCBs – PCBs [Figure 3] were detected in many samples and the RSL and Maine RAGs were exceeded in some of the samples. Figure 3 indicates that higher concentrations of total PCBs were detected at locations generally close to the mill structures or in the waste pile north of the mill structures.

Dioxins/Furans – PCDDs and PCDFs [Figure 6] were detected in all samples, some exceeding the residential or commercial/industrial RSLs. None exceeded the Maine RAGs. Figure 6 indicates that higher concentrations of 2,3,7,8-TCDD TE were detected at locations generally near the mill structures.

Metals and Inorganics – A number of metals and cyanide were detected in Site surficial soil samples and several exceeded the RSLs or Maine RAGs. However, only arsenic [Figure 7] frequently exceeded the commercial/industrial RSL and the Maine residential and construction

worker RAGs. Only three of the 19 surficial samples exceeded the Maine RAGs undeveloped background arsenic concentration of 16 mg/Kg.

PFAS – While PFAS chemicals were detected in 4 of 21 samples, none exceeded the Maine RAGs.

3.3 Subsurface Soil Results

Table S-3 presents the summary statistics for subsurface soil samples at the Site. Sample locations for select chemicals are depicted in Figures 2, 4, and 8.

VOCs – Several VOCs were detected in the subsurface soil samples and frequently detected VOCs included: 2-butanone, acetone, methyl acetate, methylene chloride, chloroform, and trichloroethene. None of the detected VOCs exceeded either the RSLs or Maine RAGs.

SVOCs – Several PAHs were detected in the subsurface samples exceeding the residential RSLs. Only benzo(a)pyrene [Figure 2] and dibenz(a,h)anthracene frequently exceeded the residential and commercial/industrial RSLs or the Maine residential RAGs. As depicted in Figure 2, elevated benzo(a)pyrene concentrations were detected adjacent to the mill structures and along Depot Street.

Pesticides – The pesticides 4,4'-DDE and Endrin were each only detected once in the subsurface soil samples, without any exceedances of the RSLs or Maine RAGs.

PCBs – PCBs [Figure 4] were detected in many subsurface samples and the RSLs and Maine RAGs were exceeded in some of the samples. For PCBs analyzed as Aroclors, Aroclor 1254 was the most frequently detected, followed by Aroclor 1248. Figure 4 indicates that higher concentrations of total PCBs were detected at locations generally close to the mill structures or in the waste pile north of the mill structures.

Dioxins/Furans – PCDDs and PCDFs [Figure 6] were detected in all samples, some exceeding the residential or commercial/industrial RSLs. None exceeded the Maine RAGs. Figure 6 indicates that higher concentrations of 2,3,7,8-TCDD TE were detected at locations generally near the mill structures

Metals and Inorganics – A number of metals and cyanide were detected in Site subsurface soil samples and several exceeded the RSLs or Maine RAGs. However, only arsenic [Figure 8] frequently exceeded the RSLs and the Maine RAGs. Of the 57 samples, 16 subsurface samples exceeded the Maine RAGs undeveloped background arsenic concentration of 16 mg/Kg.

PFAS – While PFAS chemicals were detected in 3 of 24 samples, none exceeded the Maine RAGs.

TABLES

**Table SO-1
Background Soil
Summary Statistics and Criteria Comparisons
Keddy Mill Superfund Site
Windham, Maine
Page 1 of 8**

Chemical	Units	Analyzed	Detects	Non Detects	Rejects	Min Det	Max Det	Avg Det	Freq Of Det	Det Range	Max Location	RSL Soil Res. - May 2016		RSL Soil Comm./Ind. - May 2016		Maine RAGs Soil Res. - Feb 2016		Maine RAGs Soil Const. Worker - Feb 2016	
												Value	Exceedances	Value	Exceedances	Value	Exceedances	Value	Exceedances
Volatile Organic Compounds																			
1,1,1-Trichloroethane	ug/kg	20	0	20	0	--	--	--	0/20	--	--	810000	0	3600000	0	10000000	0	10000000	0
1,1,2,2-Tetrachloroethane	ug/kg	20	0	20	0	--	--	--	0/20	--	--	600	0	2700	0	71000	0	2200000	0
1,1,2-Trichloro-1,2,2-trifluoroethane	ug/kg	20	0	20	0	--	--	--	0/20	--	--	4000000	0	17000000	0	NS	--	NS	NA
1,1,2-Trichloroethane	ug/kg	20	0	20	0	--	--	--	0/20	--	--	150	0	630	0	250000	0	5400000	0
1,1-Dichloroethane	ug/kg	20	0	20	0	--	--	--	0/20	--	--	3600	0	16000	0	2500000	0	10000000	0
1,1-Dichloroethene	ug/kg	20	0	20	0	--	--	--	0/20	--	--	23000	0	100000	0	8500000	0	10000000	0
1,2,3-Trichlorobenzene	ug/kg	19	2	17	1	2	2.8	2.4	2/19	2 - 2.8	BKG-20	6300	0	93000	0	1700000	0	420000	0
1,2,4-Trichlorobenzene	ug/kg	19	1	18	1	2.3	2.3	2.3	1/19	2.3 - 2.3	BKG-19	5800	0	26000	0	490000	0	430000	0
1,2-Dibromo-3-chloropropane	ug/kg	19	0	19	1	--	--	--	0/19	--	--	5.3	0	64	0	3200	0	51000	0
1,2-Dibromoethane	ug/kg	20	0	20	0	--	--	--	0/20	--	--	36	0	160	0	7100	0	180000	0
1,2-Dichlorobenzene	ug/kg	19	0	19	1	--	--	--	0/19	--	--	180000	0	930000	0	5100000	0	10000000	0
1,2-Dichloroethane	ug/kg	20	0	20	0	--	--	--	0/20	--	--	460	0	2000	0	160000	0	3700000	0
1,2-Dichloropropane	ug/kg	20	0	20	0	--	--	--	0/20	--	--	1000	0	4400	0	390000	0	5500000	0
1,3-Dichlorobenzene	ug/kg	19	0	19	1	--	--	--	0/19	--	--	NS	--	NS	--	34000	0	6200000	0
1,4-Dichlorobenzene	ug/kg	19	0	19	1	--	--	--	0/19	--	--	2600	0	11000	0	2600000	0	10000000	0
2-Butanone	ug/kg	20	19	1	0	6.1	37	18.3	19/20	6.1 - 37	BKG-19	2700000	0	19000000	0	10000000	0	10000000	0
2-Hexanone	ug/kg	20	0	20	0	--	--	--	0/20	--	--	20000	0	130000	0	NS	--	NS	NA
4-Methyl-2-pentanone	ug/kg	20	0	20	0	--	--	--	0/20	--	--	3300000	0	14000000	0	10000000	0	10000000	0
Acetone	ug/kg	20	20	0	0	84	640	215	20/20	84 - 640	BKG-20	6100000	0	67000000	0	10000000	0	10000000	0
Benzene	ug/kg	20	0	20	0	--	--	--	0/20	--	--	1200	0	5100	0	85000	0	150000	0
Bromochloromethane	ug/kg	20	0	20	0	--	--	--	0/20	--	--	15000	0	63000	0	NS	--	NS	NA
Bromodichloromethane	ug/kg	20	0	20	0	--	--	--	0/20	--	--	290	0	1300	0	230000	0	6200000	0
Bromoform	ug/kg	19	0	19	1	--	--	--	0/19	--	--	19000	0	86000	0	1400000	0	10000000	0
Bromomethane	ug/kg	20	0	20	0	--	--	--	0/20	--	--	680	0	3000	0	240000	0	930000	0
Carbon disulfide	ug/kg	20	0	20	0	--	--	--	0/20	--	--	77000	0	350000	0	10000000	0	10000000	0
Carbon tetrachloride	ug/kg	20	0	20	0	--	--	--	0/20	--	--	650	0	2900	0	200000	0	2800000	0
Chlorobenzene	ug/kg	20	0	20	0	--	--	--	0/20	--	--	28000	0	130000	0	3400000	0	10000000	0
Chloroethane	ug/kg	20	0	20	0	--	--	--	0/20	--	--	1400000	0	5700000	0	1700000	0	10000000	0
Chloroform	ug/kg	20	0	20	0	--	--	--	0/20	--	--	320	0	1400	0	460000	0	10000000	0
Chloromethane	ug/kg	20	0	20	0	--	--	--	0/20	--	--	11000	0	46000	0	10000000	0	10000000	0
cis-1,2-Dichloroethene	ug/kg	20	0	20	0	--	--	--	0/20	--	--	16000	0	230000	0	340000	0	6200000	0
cis-1,3-Dichloropropene	ug/kg	20	0	20	0	--	--	--	0/20	--	--	NS	--	NS	--	NS	--	NS	NA
Cyclohexane	ug/kg	20	0	20	0	--	--	--	0/20	--	--	650000	0	2700000	0	NS	--	NS	NA
Dibromochloromethane	ug/kg	20	0	20	0	--	--	--	0/20	--	--	8300	0	39000	0	170000	0	4300000	0
Dichlorodifluoromethane	ug/kg	20	0	20	0	--	--	--	0/20	--	--	8700	0	37000	0	10000000	0	10000000	0

Color - Standard Exceeded; NS - No Standard; -- Not Applicable

Nobis Engineering, Inc.

Table SO-1
Background Soil
Summary Statistics and Criteria Comparisons
Keddy Mill Superfund Site
Windham, Maine
Page 2 of 8

Chemical	Units	Analyzed	Detects	Non Detects	Rejects	Min Det	Max Det	Avg Det	Freq Of Det	Det Range	Max Location	RSL Soil Res. - May 2016		RSL Soil Comm./Ind. - May 2016		Maine RAGs Soil Res. - Feb 2016		Maine RAGs Soil Const. Worker - Feb 2016	
												Value	Exceedances	Value	Exceedances	Value	Exceedances	Value	Exceedances
Ethylbenzene	ug/kg	20	0	20	0	--	--	--	0/20	--	--	5800	0	25000	0	1300000	0	10000000	0
Isopropylbenzene	ug/kg	20	0	20	0	--	--	--	0/20	--	--	190000	0	990000	0	NS	--	NS	NA
m,p-Xylene	ug/kg	20	0	20	0	--	--	--	0/20	--	--	NS	--	NS	--	NS	--	NS	NA
Methyl acetate	ug/kg	20	19	1	0	2.7	260	54.3	19/20	2.7 - 260	BKG-11	7800000	0	120000000	0	NS	--	NS	NA
Methyl tert-butyl ether	ug/kg	20	0	20	0	--	--	--	0/20	--	--	47000	0	210000	0	5100000	0	10000000	0
Methylcyclohexane	ug/kg	20	0	20	0	--	--	--	0/20	--	--	NS	--	NS	--	NS	--	NS	NA
Methylene chloride	ug/kg	20	5	15	0	9.1	63	34.2	5/20	9.1 - 63	BKG-09	35000	0	320000	0	1000000	0	10000000	0
o-Xylene	ug/kg	20	0	20	0	--	--	--	0/20	--	--	65000	0	280000	0	NS	--	NS	NA
Styrene	ug/kg	20	0	20	0	--	--	--	0/20	--	--	600000	0	3500000	0	10000000	0	10000000	0
Tetrachloroethene	ug/kg	20	0	20	0	--	--	--	0/20	--	--	8100	0	39000	0	1000000	0	10000000	0
Toluene	ug/kg	20	5	15	0	1.4	11	5.68	5/20	1.4 - 11	BKG-15; BKG-20	490000	0	4700000	0	10000000	0	10000000	0
trans-1,2-Dichloroethene	ug/kg	20	0	20	0	--	--	--	0/20	--	--	160000	0	2300000	0	3400000	0	10000000	0
trans-1,3-Dichloropropene	ug/kg	20	0	20	0	--	--	--	0/20	--	--	NS	--	NS	--	NS	--	NS	NA
Trichloroethene	ug/kg	20	0	20	0	--	--	--	0/20	--	--	410	0	1900	0	85000	0	140000	0
Trichlorofluoromethane	ug/kg	20	0	20	0	--	--	--	0/20	--	--	2300000	0	35000000	0	10000000	0	10000000	0
Vinyl chloride	ug/kg	20	0	20	0	--	--	--	0/20	--	--	59	0	1700	0	480	0	600000	0
Semi-Volatile Organic Compounds																			
1,1'-Biphenyl	ug/kg	20	0	20	0	--	--	--	0/20	--	--	4700	0	20000	0	8500000	0	10000000	0
1,2,4,5-Tetrachlorobenzene	ug/kg	20	0	20	0	--	--	--	0/20	--	--	2300	0	35000	0	NS	--	NS	NA
1,4-Dioxane	ug/kg	20	0	20	0	--	--	--	0/20	--	--	5300	0	24000	0	110000	0	3300000	0
2,2'-Oxybis(1-chloropropane)	ug/kg	20	0	20	0	--	--	--	0/20	--	--	310000	0	4700000	0	NS	--	NS	NA
2,3,4,6-Tetrachlorophenol	ug/kg	20	0	20	0	--	--	--	0/20	--	--	190000	0	2500000	0	NS	--	NS	NA
2,4,5-Trichlorophenol	ug/kg	20	0	20	0	--	--	--	0/20	--	--	630000	0	8200000	0	10000000	0	10000000	0
2,4,6-Trichlorophenol	ug/kg	20	0	20	0	--	--	--	0/20	--	--	6300	0	82000	0	130000	0	240000	0
2,4-Dichlorophenol	ug/kg	20	0	20	0	--	--	--	0/20	--	--	19000	0	250000	0	400000	0	710000	0
2,4-Dimethylphenol	ug/kg	20	0	20	0	--	--	--	0/20	--	--	130000	0	1600000	0	2700000	0	10000000	0
2,4-Dinitrophenol	ug/kg	20	0	20	0	--	--	--	0/20	--	--	13000	0	160000	0	270000	0	4800000	0
2,4-Dinitrotoluene	ug/kg	20	0	20	0	--	--	--	0/20	--	--	1700	0	7400	0	35000	0	480000	0
2,6-Dinitrotoluene	ug/kg	20	0	20	0	--	--	--	0/20	--	--	360	0	1500	0	16000	0	490000	0
2-Chloronaphthalene	ug/kg	20	0	20	0	--	--	--	0/20	--	--	480000	0	6000000	0	NS	--	NS	NA
2-Chlorophenol	ug/kg	20	0	20	0	--	--	--	0/20	--	--	39000	0	580000	0	850000	0	2500000	0
2-Methylnaphthalene	ug/kg	20	10	10	0	0.71	8.3	2.6	10/20	0.71 - 8.3	BKG-12	24000	0	300000	0	500000	0	600000	0
2-Methylphenol	ug/kg	20	0	20	0	--	--	--	0/20	--	--	320000	0	4100000	0	6700000	0	10000000	0
2-Nitroaniline	ug/kg	20	0	20	0	--	--	--	0/20	--	--	63000	0	800000	0	NS	--	NS	NA
2-Nitrophenol	ug/kg	0	0	0	20	--	--	--	0/0	--	--	NS	--	NS	--	NS	--	NS	NA

Color - Standard Exceeded; NS - No Standard; -- Not Applicable

Nobis Engineering, Inc.

**Table SO-1
Background Soil
Summary Statistics and Criteria Comparisons
Keddy Mill Superfund Site
Windham, Maine
Page 3 of 8**

Chemical	Units	Analyzed	Detects	Non Detects	Rejects	Min Det	Max Det	Avg Det	Freq Of Det	Det Range	Max Location	RSL Soil Res. - May 2016		RSL Soil Comm./Ind. - May 2016		Maine RAGs Soil Res. - Feb 2016		Maine RAGs Soil Const. Worker - Feb 2016	
												Value	Exceedances	Value	Exceedances	Value	Exceedances	Value	Exceedances
3,3'-Dichlorobenzidine	ug/kg	20	0	20	0	--	--	--	0/20	--	--	1200	0	5100	0	24000	0	740000	0
3-Nitroaniline	ug/kg	20	0	20	0	--	--	--	0/20	--	--	NS	--	NS	--	NS	--	NS	NA
4,6-Dinitro-2-methylphenol	ug/kg	20	0	20	0	--	--	--	0/20	--	--	510	0	6600	0	NS	--	NS	NA
4-Bromophenyl-phenylether	ug/kg	20	0	20	0	--	--	--	0/20	--	--	NS	--	NS	--	NS	--	NS	NA
4-Chloro-3-methylphenol	ug/kg	20	0	20	0	--	--	--	0/20	--	--	630000	0	8200000	0	NS	--	NS	NA
4-Chloroaniline	ug/kg	20	0	20	0	--	--	--	0/20	--	--	2700	0	11000	0	54000	0	120000	0
4-Chlorophenyl-phenylether	ug/kg	20	0	20	0	--	--	--	0/20	--	--	NS	--	NS	--	NS	--	NS	NA
4-Methylphenol	ug/kg	20	0	20	0	--	--	--	0/20	--	--	630000	0	8200000	0	670000	0	10000000	0
4-Nitroaniline	ug/kg	20	0	20	0	--	--	--	0/20	--	--	25000	0	110000	0	NS	--	NS	NA
4-Nitrophenol	ug/kg	20	0	20	0	--	--	--	0/20	--	--	NS	--	NS	--	NS	--	NS	NA
Acenaphthene	ug/kg	20	7	13	0	0.91	6.2	2.92	7/20	0.91 - 6.2	BKG-12	360000	0	4500000	0	7500000	0	9800000	0
Acenaphthylene	ug/kg	20	19	1	0	0.77	64	11.4	19/20	0.77 - 64	BKG-12	NS	--	NS	--	7500000	0	10000000	0
Acetophenone	ug/kg	20	0	20	0	--	--	--	0/20	--	--	780000	0	12000000	0	NS	--	NS	NA
Anthracene	ug/kg	20	19	1	0	1	58	7.96	19/20	1 - 58	BKG-12	1800000	0	23000000	0	10000000	0	3800000	0
Atrazine	ug/kg	20	0	20	0	--	--	--	0/20	--	--	2400	0	10000	0	47000	0	710000	0
Benzaldehyde	ug/kg	20	2	18	0	99	180	140	2/20	99 - 180	BKG-09	170000	0	820000	0	NS	--	NS	NA
Benzo(a)anthracene	ug/kg	20	20	0	0	3.6	280	40.3	20/20	3.6 - 280	BKG-12	160	1	2900	0	2600	0	430000	0
Benzo(a)pyrene	ug/kg	20	20	0	0	4	240	40.3	20/20	4 - 240	BKG-12	16	12	290	0	260	0	43000	0
Benzo(b)fluoranthene	ug/kg	20	20	0	0	6.9	270	54.3	20/20	6.9 - 270	BKG-12	160	2	2900	0	2600	0	430000	0
Benzo(g,h,i)perylene	ug/kg	20	20	0	0	3.5	130	29.9	20/20	3.5 - 130	BKG-12	NS	--	NS	--	3700000	0	10000000	0
Benzo(k)fluoranthene	ug/kg	20	20	0	0	2.7	85	18.1	20/20	2.7 - 85	BKG-12	1600	0	29000	0	26000	0	4300000	0
Bis(2-chloroethoxy)methane	ug/kg	20	0	20	0	--	--	--	0/20	--	--	19000	0	250000	0	NS	--	NS	NA
Bis(2-chloroethyl)ether	ug/kg	20	0	20	0	--	--	--	0/20	--	--	230	0	1000	0	9800	0	250000	0
Bis(2-ethylhexyl)phthalate	ug/kg	20	6	14	0	55	320	158	6/20	55 - 320	BKG-11	39000	0	160000	0	770000	0	10000000	0
Butylbenzylphthalate	ug/kg	20	1	19	0	630	630	630	1/20	630 - 630	BKG-11	290000	0	1200000	0	5700000	0	10000000	0
Caprolactam	ug/kg	20	0	20	0	--	--	--	0/20	--	--	3100000	0	40000000	0	NS	--	NS	NA
Carbazole	ug/kg	20	0	20	0	--	--	--	0/20	--	--	NS	--	NS	--	540000	0	10000000	0
Chrysene	ug/kg	20	20	0	0	4.7	330	50.1	20/20	4.7 - 330	BKG-12	16000	0	290000	0	260000	0	10000000	0
Dibenz(a,h)anthracene	ug/kg	20	16	4	0	1.2	53	13	16/20	1.2 - 53	BKG-17	16	4	290	0	260	0	43000	0
Dibenzofuran	ug/kg	20	0	20	0	--	--	--	0/20	--	--	7300	0	100000	0	130000	0	950000	0
Diethylphthalate	ug/kg	20	0	20	0	--	--	--	0/20	--	--	5100000	0	66000000	0	10000000	0	10000000	0
Dimethylphthalate	ug/kg	20	20	0	0	180	440	288	20/20	180 - 440	BKG-18	NS	--	NS	--	NS	--	NS	NA

Color - Standard Exceeded; NS - No Standard; -- Not Applicable

Nobis Engineering, Inc.

**Table SO-1
Background Soil
Summary Statistics and Criteria Comparisons
Keddy Mill Superfund Site
Windham, Maine
Page 4 of 8**

Chemical	Units	Analyzed	Detects	Non Detects	Rejects	Min Det	Max Det	Avg Det	Freq Of Det	Det Range	Max Location	RSL Soil Res. - May 2016		RSL Soil Comm./Ind. - May 2016		Maine RAGs Soil Res. - Feb 2016		Maine RAGs Soil Const. Worker - Feb 2016	
												Value	Exceedances	Value	Exceedances	Value	Exceedances	Value	Exceedances
Di-N-Butylphthalate	ug/kg	20	1	19	0	250	250	250	1/20	250 - 250	BKG-11	630000	0	8200000	0	10000000	0	10000000	0
Di-N-Octyl Phthalate	ug/kg	20	0	20	0	--	--	--	0/20	--	--	63000	0	820000	0	1600000	0	2900000	0
Fluoranthene	ug/kg	20	20	0	0	8	420	77.6	20/20	8 - 420	BKG-12	240000	0	3000000	0	5000000	0	10000000	0
Fluorene	ug/kg	20	10	10	0	1.1	23	5.64	10/20	1.1 - 23	BKG-12	240000	0	3000000	0	5000000	0	10000000	0
Hexachlorobenzene	ug/kg	20	0	20	0	--	--	--	0/20	--	--	210	0	960	0	6800	0	190000	0
Hexachlorobutadiene	ug/kg	20	0	20	0	--	--	--	0/20	--	--	1200	0	5300	0	130000	0	240000	0
Hexachlorocyclopentadiene	ug/kg	20	0	20	0	--	--	--	0/20	--	--	180	0	750	0	NS	--	NS	NA
Hexachloroethane	ug/kg	20	0	20	0	--	--	--	0/20	--	--	1800	0	8000	0	93000	0	2400000	0
Indeno(1,2,3-cd)pyrene	ug/kg	20	20	0	0	3.1	120	27.4	20/20	3.1 - 120	BKG-12	160	0	2900	0	2600	0	430000	0
Isophorone	ug/kg	20	0	20	0	--	--	--	0/20	--	--	570000	0	2400000	0	NS	--	NS	NA
Naphthalene	ug/kg	20	13	7	0	0.83	10	2.63	13/20	0.83 - 10	BKG-12	3800	0	17000	0	2500000	0	10000000	0
Nitrobenzene	ug/kg	20	0	20	0	--	--	--	0/20	--	--	5100	0	22000	0	NS	--	NS	NA
N-Nitroso-di-n-propylamine (NDPA)	ug/kg	20	0	20	0	--	--	--	0/20	--	--	78	0	330	0	NS	--	NS	NA
N-Nitrosodiphenylamine	ug/kg	20	0	20	0	--	--	--	0/20	--	--	110000	0	470000	0	NS	--	NS	NA
Pentachlorophenol	ug/kg	20	1	19	0	1.7	1.7	1.7	1/20	1.7 - 1.7	BKG-13	1000	0	4000	0	20000	0	620000	0
Phenanthrene	ug/kg	20	20	0	0	3.5	270	40.4	20/20	3.5 - 270	BKG-12	NS	--	NS	--	3700000	0	8900000	0
Phenol	ug/kg	20	8	12	0	42	72	57	8/20	42 - 72	BKG-15	1900000	0	25000000	0	10000000	0	10000000	0
Pyrene	ug/kg	20	20	0	0	7.7	530	85.4	20/20	7.7 - 530	BKG-12	180000	0	2300000	0	3700000	0	10000000	0
PESTICIDES																			
4,4'-DDD	ug/kg	20	0	20	0	--	--	--	0/20	--	--	2300	0	9600	0	45000	0	1400000	0
4,4'-DDE	ug/kg	20	4	16	0	0.88	2.5	1.84	4/20	0.88 - 2.5	BKG-08	2000	0	9300	0	32000	0	980000	0
4,4'-DDT	ug/kg	20	4	16	0	1.5	5.4	2.78	4/20	1.5 - 5.4	BKG-02	1900	0	8500	0	38000	0	140000	0
Aldrin	ug/kg	20	0	20	0	--	--	--	0/20	--	--	39	0	180	0	640	0	9500	0
alpha-BHC	ug/kg	20	0	20	0	--	--	--	0/20	--	--	86	0	360	0	1700	0	53000	0
beta-BHC	ug/kg	20	0	20	0	--	--	--	0/20	--	--	300	0	1300	0	6000	0	140000	0
cis-Chlordane	ug/kg	20	0	20	0	--	--	--	0/20	--	--	NS	--	NS	--	NS	--	NS	NA
delta-BHC	ug/kg	20	0	20	0	--	--	--	0/20	--	--	NS	--	NS	--	NS	--	NS	NA
Dieldrin	ug/kg	20	0	20	0	--	--	--	0/20	--	--	34	0	140	0	680	0	21000	0
Endosulfan I	ug/kg	20	0	20	0	--	--	--	0/20	--	--	NS	--	NS	--	800000	0	1400000	0
Endosulfan II	ug/kg	20	1	19	0	200	200	200	1/20	200 - 200	BKG-11	NS	--	NS	--	800000	0	1400000	0
Endosulfan Sulfate	ug/kg	20	0	20	0	--	--	--	0/20	--	--	NS	--	NS	--	NS	--	NS	NA
Endrin	ug/kg	20	0	20	0	--	--	--	0/20	--	--	1900	0	25000	0	40000	0	480000	0
Endrin Aldehyde	ug/kg	20	0	20	0	--	--	--	0/20	--	--	NS	--	NS	--	NS	--	NS	NA
Endrin Ketone	ug/kg	20	0	20	0	--	--	--	0/20	--	--	NS	--	NS	--	NS	--	NS	NA

Color - Standard Exceeded; NS - No Standard; -- Not Applicable

Nobis Engineering, Inc.

Table SO-1
Background Soil
Summary Statistics and Criteria Comparisons
Keddy Mill Superfund Site
Windham, Maine
Page 5 of 8

Chemical	Units	Analyzed	Detects	Non Detects	Rejects	Min Det	Max Det	Avg Det	Freq Of Det	Det Range	Max Location	RSL Soil Res. - May 2016		RSL Soil Comm./Ind. - May 2016		Maine RAGs Soil Res. - Feb 2016		Maine RAGs Soil Const. Worker - Feb 2016	
												Value	Exceedances	Value	Exceedances	Value	Exceedances	Value	Exceedances
gamma-BHC (Lindane)	ug/kg	20	0	20	0	--	--	--	0/20	--	--	570	0	2500	0	610	0	2800	0
Heptachlor	ug/kg	20	0	20	0	--	--	--	0/20	--	--	130	0	630	0	1300	0	24000	0
Heptachlor Epoxide	ug/kg	20	0	20	0	--	--	--	0/20	--	--	70	0	330	0	1200	0	3100	0
Methoxychlor	ug/kg	20	0	20	0	--	--	--	0/20	--	--	32000	0	410000	0	670000	0	1200000	0
Toxaphene	ug/kg	20	0	20	0	--	--	--	0/20	--	--	490	0	2100	0	NS	--	NS	NA
trans-Chlordane	ug/kg	20	0	20	0	--	--	--	0/20	--	--	NS	--	NS	--	NS	--	NS	NA
PCB CONGENERS AND HOMOLOGUES																			
PCB-105	ng/kg	20	19	1	0	2.1	640	110	19/20	2.1 - 640	BKG-07	120000	0	490000	0	NS	--	NS	NA
PCB-114	ng/kg	20	1	19	0	13	13	13	1/20	13 - 13	BKG-07	120000	0	500000	0	NS	--	NS	NA
PCB-118	ng/kg	20	20	0	0	3.7	950	190	20/20	3.7 - 950	BKG-07	120000	0	490000	0	NS	--	NS	NA
PCB-123	ng/kg	3	3	0	17	2.2	33	12.9	3/3	2.2 - 33	BKG-07	120000	0	490000	0	NS	--	NS	NA
PCB-126	ng/kg	20	2	18	0	3.4	8.7	6.05	2/20	3.4 - 8.7	BKG-07	36	0	150	0	NS	--	NS	NA
PCB-156/157	ng/kg	20	13	7	0	8.5	310	77.8	13/20	8.5 - 310	BKG-07	NS	--	NS	--	NS	--	NS	NA
PCB-167	ng/kg	20	11	9	0	3.4	99	29	11/20	3.4 - 99	BKG-07	120000	0	510000	0	NS	--	NS	NA
PCB-169	ng/kg	20	0	20	0	--	--	--	0/20	--	--	120	0	510	0	NS	--	NS	NA
PCB-189	ng/kg	20	3	17	0	2.1	36	13.8	3/20	2.1 - 36	BKG-07	130000	0	520000	0	NS	--	NS	NA
PCB-209 (Decachlorobiphenyl)	ng/kg	20	19	1	0	6.2	310	109	19/20	6.2 - 310	BKG-10	NS	--	NS	--	NS	--	NS	NA
PCB-77	ng/kg	20	6	14	0	2.1	37	17.1	6/20	2.1 - 37	BKG-13	38000	0	160000	0	NS	--	NS	NA
PCB-81	ng/kg	1	1	0	19	2.6	2.6	2.6	1/1	2.6 - 2.6	BKG-07	12000	0	48000	0	NS	--	NS	NA
PCBC Total TEQ	ng/kg	20	20	0	0	0.00018	0.935	0.072	20/20	0.000176 - 0.935	BKG-07	230000	0	940000	0	2400000	0	6500000	0
Total DiCB	ng/kg	20	11	9	0	6.2	100	48.3	11/20	6.2 - 100	BKG-07	NS	--	NS	--	NS	--	NS	NA
Total HpCB	ng/kg	20	20	0	0	18	9500	817	20/20	18 - 9500	BKG-07	NS	--	NS	--	NS	--	NS	NA
Total HxCB	ng/kg	20	20	0	0	29	12000	1600	20/20	29 - 12000	BKG-07	NS	--	NS	--	NS	--	NS	NA
Total MoCB	ng/kg	20	3	17	0	3.1	60	25.7	3/20	3.1 - 60	BKG-14	NS	--	NS	--	NS	--	NS	NA
Total NoCB	ng/kg	20	20	0	0	3.7	1100	215	20/20	3.7 - 1100	BKG-07	NS	--	NS	--	NS	--	NS	NA
Total OcCB	ng/kg	20	19	1	0	2.1	4400	439	19/20	2.1 - 4400	BKG-07	NS	--	NS	--	NS	--	NS	NA
Total PCB Homologues	ng/kg	20	20	0	0	170	36000	4290	20/20	170 - 36000	BKG-07	230000	0	940000	0	2400000	0	6500000	0
Total PeCB	ng/kg	20	20	0	0	17	7200	956	20/20	17 - 7200	BKG-07	NS	--	NS	--	NS	--	NS	NA
Total TeCB	ng/kg	20	15	5	0	4.3	1400	205	15/20	4.3 - 1400	BKG-07	NS	--	NS	--	NS	--	NS	NA

Color - Standard Exceeded; NS - No Standard; -- Not Applicable

Nobis Engineering, Inc.

**Table SO-1
Background Soil
Summary Statistics and Criteria Comparisons
Keddy Mill Superfund Site
Windham, Maine
Page 6 of 8**

Chemical	Units	Analyzed	Detects	Non Detects	Rejects	Min Det	Max Det	Avg Det	Freq Of Det	Det Range	Max Location	RSL Soil Res. - May 2016		RSL Soil Comm./Ind. - May 2016		Maine RAGs Soil Res. - Feb 2016		Maine RAGs Soil Const. Worker - Feb 2016	
												Value	Exceedances	Value	Exceedances	Value	Exceedances	Value	Exceedances
Total TrCB	ng/kg	20	7	13	0	24	270	84.3	7/20	24 - 270	BKG-07	NS	--	NS	--	NS	--	NS	NA
PCDDs/PCDFs																			
1,2,3,4,6,7,8,9-Octachlorodibenzofuran	ng/kg	2	2	0	0	4.4	4.75	4.58	2/2	4.4 - 4.75	BKG-01	NS	--	NS	--	NS	--	NS	NA
1,2,3,4,6,7,8,9-Octachlorodibenzo-p-dioxin	ng/kg	2	2	0	0	400	1440	920	2/2	400 - 1440	BKG-01	NS	--	NS	--	NS	--	NS	NA
1,2,3,4,6,7,8-Heptachlorodibenzofuran	ng/kg	2	2	0	0	2.87	2.87	2.87	2/2	2.87 - 2.87	BKG-01; BKG-15	NS	--	NS	--	NS	--	NS	NA
1,2,3,4,6,7,8-Heptachlorodibenzo-p-dioxin	ng/kg	2	2	0	0	12.6	32	22.3	2/2	12.6 - 32	BKG-01	NS	--	NS	--	NS	--	NS	NA
1,2,3,4,7,8,9-Heptachlorodibenzofuran	ng/kg	2	2	0	0	0.277	0.284	0.28	2/2	0.277 - 0.284	BKG-15	NS	--	NS	--	NS	--	NS	NA
1,2,3,4,7,8-Hexachlorodibenzofuran	ng/kg	2	2	0	0	0.396	0.569	0.482	2/2	0.396 - 0.569	BKG-15	NS	--	NS	--	NS	--	NS	NA
1,2,3,4,7,8-Hexachlorodibenzo-p-dioxin	ng/kg	2	2	0	0	0.296	0.461	0.378	2/2	0.296 - 0.461	BKG-01	NS	--	NS	--	NS	--	NS	NA
1,2,3,6,7,8-Hexachlorodibenzofuran	ng/kg	2	2	0	0	0.222	0.457	0.34	2/2	0.222 - 0.457	BKG-15	NS	--	NS	--	NS	--	NS	NA
1,2,3,6,7,8-Hexachlorodibenzo-p-dioxin	ng/kg	2	2	0	0	0.533	0.647	0.59	2/2	0.533 - 0.647	BKG-01	NS	--	NS	--	NS	--	NS	NA
1,2,3,7,8,9-Hexachlorodibenzofuran	ng/kg	2	2	0	0	0.186	0.247	0.216	2/2	0.186 - 0.247	BKG-01	NS	--	NS	--	NS	--	NS	NA
1,2,3,7,8,9-Hexachlorodibenzo-p-dioxin	ng/kg	2	2	0	0	0.553	0.666	0.61	2/2	0.553 - 0.666	BKG-01	NS	--	NS	--	NS	--	NS	NA
1,2,3,7,8-Pentachlorodibenzofuran	ng/kg	2	2	0	0	0.212	0.383	0.298	2/2	0.212 - 0.383	BKG-15	NS	--	NS	--	NS	--	NS	NA
1,2,3,7,8-Pentachlorodibenzo-p-dioxin	ng/kg	2	2	0	0	0.263	0.273	0.268	2/2	0.263 - 0.273	BKG-15	NS	--	NS	--	NS	--	NS	NA
2,3,4,6,7,8-Hexachlorodibenzofuran	ng/kg	2	2	0	0	0.34	0.58	0.46	2/2	0.34 - 0.58	BKG-15	NS	--	NS	--	NS	--	NS	NA
2,3,4,7,8-Pentachlorodibenzofuran	ng/kg	2	2	0	0	0.249	0.623	0.436	2/2	0.249 - 0.623	BKG-15	NS	--	NS	--	NS	--	NS	NA
2,3,7,8-Tetrachlorodibenzofuran	ng/kg	2	2	0	0	0.306	0.661	0.484	2/2	0.306 - 0.661	BKG-15	NS	--	NS	--	NS	--	NS	NA
2,3,7,8-Tetrachlorodibenzo-p-dioxin	ng/kg	2	0	2	0	--	--	--	0/2	--	--	4.8	0	22	0	100	0	3100	0
2,3,7,8-TCDD - Toxicity Equivalent	ng/kg	2	2	0	0	1.13	1.44	1.28	2/2	1.13 - 1.44	BKG-01	4.8	0	22	0	100	0	3100	0
Heptachlorodibenzofuran (total)	ng/kg	2	2	0	0	5.08	6.09	5.58	2/2	5.08 - 6.09	BKG-01	NS	--	NS	--	NS	--	NS	NA
Heptachlorodibenzo-p-dioxin (total)	ng/kg	2	2	0	0	27.4	70	48.7	2/2	27.4 - 70	BKG-01	NS	--	NS	--	NS	--	NS	NA
Hexachlorodibenzofuran (total)	ng/kg	2	2	0	0	4.04	5.93	4.98	2/2	4.04 - 5.93	BKG-15	NS	--	NS	--	NS	--	NS	NA
Hexachlorodibenzo-p-dioxin (total)	ng/kg	2	2	0	0	6.74	8.36	7.55	2/2	6.74 - 8.36	BKG-01	100	0	470	0	NS	--	NS	NA
Pentachlorodibenzofuran (total)	ng/kg	2	2	0	0	2.81	7.31	5.06	2/2	2.81 - 7.31	BKG-15	NS	--	NS	--	NS	--	NS	NA
Pentachlorodibenzo-p-dioxin (total)	ng/kg	2	2	0	0	2.24	2.71	2.48	2/2	2.24 - 2.71	BKG-15	NS	--	NS	--	NS	--	NS	NA
Tetrachlorodibenzo(p)dioxin (total)	ng/kg	2	2	0	0	0.521	1.15	0.836	2/2	0.521 - 1.15	BKG-15	NS	--	NS	--	NS	--	NS	NA
Tetrachlorodibenzofuran (total)	ng/kg	2	2	0	0	3.01	9.53	6.27	2/2	3.01 - 9.53	BKG-15	NS	--	NS	--	NS	--	NS	NA
METALS AND INORGANICS																			

Color - Standard Exceeded; NS - No Standard; -- Not Applicable

Nobis Engineering, Inc.

**Table SO-1
Background Soil
Summary Statistics and Criteria Comparisons
Keddy Mill Superfund Site
Windham, Maine
Page 7 of 8**

Chemical	Units	Analyzed	Detects	Non Detects	Rejects	Min Det	Max Det	Avg Det	Freq Of Det	Det Range	Max Location	RSL Soil Res. - May 2016		RSL Soil Comm./Ind. - May 2016		Maine RAGs Soil Res. - Feb 2016		Maine RAGs Soil Const. Worker - Feb 2016	
												Value	Exceedances	Value	Exceedances	Value	Exceedances	Value	Exceedances
Aluminum	mg/kg	20	20	0	0	6840	55800	22400	20/20	6840 - 55800	BKG-19	7700	19	110000	0	170000	0	310000	0
Antimony	mg/kg	20	0	20	0	--	--	--	0/20	--	--	3.1	0	47	0	68	0	120	0
Arsenic	mg/kg	20	20	0	0	3.3	30.3	8.54	20/20	3.3 - 30.3	BKG-14	0.68	20	3	20	1.4	20	42	0
Barium	mg/kg	20	20	0	0	25.6	224	86.6	20/20	25.6 - 224	BKG-19	1500	0	22000	0	10000	0	10000	0
Beryllium	mg/kg	20	20	0	0	0.47	2.7	1.15	20/20	0.47 - 2.7	BKG-19	16	0	230	0	340	0	620	0
Cadmium	mg/kg	20	18	2	0	0.53	2.6	1.25	18/20	0.53 - 2.6	BKG-16	7.1	0	98	0	11	0	19	0
Calcium	mg/kg	20	20	0	0	342	2780	1480	20/20	342 - 2780	BKG-13	NS	--	NS	--	NS	--	NS	NA
Chromium	mg/kg	20	20	0	0	10.9	63.5	34.1	20/20	10.9 - 63.5	BKG-19	12000	0	180000	0	NS	--	NS	NA
Chromium-Hexavalent	mg/kg	4	0	4	0	--	--	--	0/4	--	--	0.3	0	6.3	0	510	0	2800	0
Cobalt	mg/kg	20	20	0	0	3.9	18	8.28	20/20	3.9 - 18	BKG-15	2.3	20	35	0	51	0	920	0
Copper	mg/kg	20	20	0	0	5.9	24	15.7	20/20	5.9 - 24	BKG-18	310	0	4700	0	2400	0	4300	0
Cyanide	mg/kg	20	0	20	0	--	--	--	0/20	--	--	2.3	0	15	0	100	0	1900	0
Iron	mg/kg	20	20	0	0	9930	45600	23000	20/20	9930 - 45600	BKG-16	5500	20	82000	0	120000	0	220000	0
Lead	mg/kg	20	20	0	0	5.5	57.2	28.4	20/20	5.5 - 57.2	BKG-18	400	0	800	0	340	0	950	0
Magnesium	mg/kg	20	20	0	0	1680	8990	4810	20/20	1680 - 8990	BKG-16	NS	--	NS	--	NS	--	NS	NA
Manganese	mg/kg	20	20	0	0	120	1400	373	20/20	120 - 1400	BKG-15	180	19	2600	0	4100	0	7400	0
Mercury	mg/kg	20	18	2	0	0.015	0.12	0.068	18/20	0.015 - 0.12	BKG-16; BKG-19	1.1	0	4.6	0	51	0	930	0
Nickel	mg/kg	20	20	0	0	8.3	39.5	21.2	20/20	8.3 - 39.5	BKG-19	150	0	2200	0	510	0	930	0
Potassium	mg/kg	20	20	0	0	741	8380	3330	20/20	741 - 8380	BKG-19	NS	--	NS	--	NS	--	NS	NA
Selenium	mg/kg	20	12	8	0	0.4	1.3	0.843	12/20	0.4 - 1.3	BKG-18; BKG-19	39	0	580	0	850	0	1500	0
Silver	mg/kg	20	0	20	0	--	--	--	0/20	--	--	39	0	580	0	850	0	1500	0
Sodium	mg/kg	20	20	0	0	61.9	294	140	20/20	61.9 - 294	BKG-19	NS	--	NS	--	NS	--	NS	NA
Thallium	mg/kg	20	3	17	0	0.56	0.76	0.64	3/20	0.56 - 0.76	BKG-19	0.078	3	1.2	0	NS	--	NS	NA
Vanadium	mg/kg	20	20	0	0	16.7	85.2	43.4	20/20	16.7 - 85.2	BKG-16	39	8	580	0	1200	0	2200	0

Color - Standard Exceeded; NS - No Standard; -- Not Applicable

Nobis Engineering, Inc.

Table SO-1
Background Soil
Summary Statistics and Criteria Comparisons
Keddy Mill Superfund Site
Windham, Maine
Page 8 of 8

Chemical	Units	Analyzed	Detects	Non Detects	Rejects	Min Det	Max Det	Avg Det	Freq Of Det	Det Range	Max Location	RSL Soil Res. - May 2016		RSL Soil Comm./Ind. - May 2016		Maine RAGs Soil Res. - Feb 2016		Maine RAGs Soil Const. Worker - Feb 2016	
												Value	Exceedances	Value	Exceedances	Value	Exceedances	Value	Exceedances
Zinc	mg/kg	20	20	0	0	26.6	144	82.5	20/20	26.6 - 144	BKG-16	2300	0	35000	0	10000	0	10000	0

Color - Standard Exceeded; NS - No Standard; -- Not Applicable

Table SO-2
Surface Soil
Summary Statistics and Criteria Comparisons
Keddy Mill Superfund Site
Windham, Maine
Page 1 of 8

Chemical	Units	Analyz ed	Detect s	Non Detects	Reject s	Min Det	Max Det	Avg Det	Freq Of Det	Det Range	Max Location	RSL Soil Res. - May 2016		RSL Soil Comm./Ind. - May 2016		Maine RAGs Soil Res. - Feb 2016		Maine RAGs Soil Const. Worker - Feb 2016	
												Value	Exceedances	Value	Exceedances	Value	Exceedances	Value	Exceedances
Volatile Organic Compounds																			
1,1,1-Trichloroethane	ug/kg	19	1	18	0	40	40	40	1/19	40 - 40	SB52	810000	0	3600000	0	10000000	0	10000000	0
1,1,2,2-Tetrachloroethane	ug/kg	19	0	19	0	--	--	--	0/19	--	--	600	0	2700	0	71000	0	2200000	0
1,1,2-Trichloro-1,2,2-trifluoroethane	ug/kg	19	0	19	0	--	--	--	0/19	--	--	4000000	0	17000000	0	NS	--	NS	NA
1,1,2-Trichloroethane	ug/kg	19	0	19	0	--	--	--	0/19	--	--	150	0	630	0	250000	0	5400000	0
1,1-Dichloroethane	ug/kg	19	0	19	0	--	--	--	0/19	--	--	3600	0	16000	0	2500000	0	10000000	0
1,1-Dichloroethene	ug/kg	19	0	19	0	--	--	--	0/19	--	--	23000	0	100000	0	8500000	0	10000000	0
1,2,3-Trichlorobenzene	ug/kg	19	0	19	0	--	--	--	0/19	--	--	6300	0	93000	0	1700000	0	420000	0
1,2,4-Trichlorobenzene	ug/kg	19	0	19	0	--	--	--	0/19	--	--	5800	0	26000	0	490000	0	430000	0
1,2-Dibromo-3-chloropropane	ug/kg	19	0	19	0	--	--	--	0/19	--	--	5.3	0	64	0	3200	0	51000	0
1,2-Dibromoethane	ug/kg	19	0	19	0	--	--	--	0/19	--	--	36	0	160	0	7100	0	180000	0
1,2-Dichlorobenzene	ug/kg	19	0	19	0	--	--	--	0/19	--	--	180000	0	930000	0	5100000	0	10000000	0
1,2-Dichloroethane	ug/kg	19	0	19	0	--	--	--	0/19	--	--	460	0	2000	0	160000	0	3700000	0
1,2-Dichloropropane	ug/kg	19	0	19	0	--	--	--	0/19	--	--	1000	0	4400	0	390000	0	5500000	0
1,3-Dichlorobenzene	ug/kg	19	0	19	0	--	--	--	0/19	--	--	NS	--	NS	--	34000	0	6200000	0
1,4-Dichlorobenzene	ug/kg	19	0	19	0	--	--	--	0/19	--	--	2600	0	11000	0	2600000	0	10000000	0
2-Butanone	ug/kg	19	0	19	0	--	--	--	0/19	--	--	2700000	0	19000000	0	10000000	0	10000000	0
2-Hexanone	ug/kg	19	0	19	0	--	--	--	0/19	--	--	20000	0	130000	0	NS	--	NS	NA
4-Methyl-2-pentanone	ug/kg	13	0	13	6	--	--	--	0/13	--	--	3300000	0	14000000	0	10000000	0	10000000	0
Acetone	ug/kg	19	1	18	0	18	18	18	1/19	18 - 18	SB41	6100000	0	67000000	0	10000000	0	10000000	0
Benzene	ug/kg	19	0	19	0	--	--	--	0/19	--	--	1200	0	5100	0	85000	0	150000	0
Bromochloromethane	ug/kg	19	0	19	0	--	--	--	0/19	--	--	15000	0	63000	0	NS	--	NS	NA
Bromodichloromethane	ug/kg	19	0	19	0	--	--	--	0/19	--	--	290	0	1300	0	230000	0	6200000	0
Bromoform	ug/kg	19	0	19	0	--	--	--	0/19	--	--	19000	0	86000	0	1400000	0	10000000	0
Bromomethane	ug/kg	19	0	19	0	--	--	--	0/19	--	--	680	0	3000	0	240000	0	930000	0
Carbon disulfide	ug/kg	19	0	19	0	--	--	--	0/19	--	--	77000	0	350000	0	10000000	0	10000000	0
Carbon tetrachloride	ug/kg	19	0	19	0	--	--	--	0/19	--	--	650	0	2900	0	200000	0	2800000	0
Chlorobenzene	ug/kg	19	0	19	0	--	--	--	0/19	--	--	28000	0	130000	0	3400000	0	10000000	0
Chloroethane	ug/kg	19	0	19	0	--	--	--	0/19	--	--	1400000	0	5700000	0	1700000	0	10000000	0
Chloroform	ug/kg	19	0	19	0	--	--	--	0/19	--	--	320	0	1400	0	460000	0	10000000	0
Chloromethane	ug/kg	19	0	19	0	--	--	--	0/19	--	--	11000	0	46000	0	10000000	0	10000000	0
cis-1,2-Dichloroethene	ug/kg	19	0	19	0	--	--	--	0/19	--	--	16000	0	230000	0	340000	0	6200000	0
cis-1,3-Dichloropropene	ug/kg	19	0	19	0	--	--	--	0/19	--	--	NS	--	NS	--	NS	--	NS	NA
Cyclohexane	ug/kg	19	0	19	0	--	--	--	0/19	--	--	650000	0	2700000	0	NS	--	NS	NA
Dibromochloromethane	ug/kg	19	0	19	0	--	--	--	0/19	--	--	8300	0	39000	0	170000	0	4300000	0
Dichlorodifluoromethane	ug/kg	19	0	19	0	--	--	--	0/19	--	--	8700	0	37000	0	10000000	0	10000000	0
Ethylbenzene	ug/kg	19	0	19	0	--	--	--	0/19	--	--	5800	0	25000	0	1300000	0	10000000	0

Color - Standard Exceeded; NS - No Standard; -- Not Applicable

Nobis Engineering, Inc.

Table SO-2
Surface Soil
Summary Statistics and Criteria Comparisons
Keddy Mill Superfund Site
Windham, Maine
Page 2 of 8

Chemical	Units	Analyz ed	Detect s	Non Detects	Reject s	Min Det	Max Det	Avg Det	Freq Of Det	Det Range	Max Location	RSL Soil Res. - May 2016		RSL Soil Comm./Ind. - May 2016		Maine RAGs Soil Res. - Feb 2016		Maine RAGs Soil Const. Worker - Feb 2016	
												Value	Exceedances	Value	Exceedances	Value	Exceedances	Value	Exceedances
Isopropylbenzene	ug/kg	19	0	19	0	--	--	--	0/19	--	--	190000	0	990000	0	NS	--	NS	NA
m,p-Xylene	ug/kg	19	0	19	0	--	--	--	0/19	--	--	NS	--	NS	--	NS	--	NS	NA
Methyl acetate	ug/kg	19	2	17	0	10	18	14	2/19	10 - 18	SB47	7800000	0	12000000	0	NS	--	NS	NA
Methyl tert-butyl ether	ug/kg	19	0	19	0	--	--	--	0/19	--	--	47000	0	210000	0	5100000	0	10000000	0
Methylcyclohexane	ug/kg	19	0	19	0	--	--	--	0/19	--	--	NS	--	NS	--	NS	--	NS	NA
Methylene chloride	ug/kg	19	4	15	0	2.5	3.4	2.98	4/19	2.5 - 3.4	SB47	35000	0	320000	0	1000000	0	10000000	0
o-Xylene	ug/kg	19	0	19	0	--	--	--	0/19	--	--	65000	0	280000	0	NS	--	NS	NA
Styrene	ug/kg	19	0	19	0	--	--	--	0/19	--	--	600000	0	3500000	0	10000000	0	10000000	0
Tetrachloroethene	ug/kg	19	0	19	0	--	--	--	0/19	--	--	8100	0	39000	0	1000000	0	10000000	0
Toluene	ug/kg	19	0	19	0	--	--	--	0/19	--	--	490000	0	4700000	0	10000000	0	10000000	0
trans-1,2-Dichloroethene	ug/kg	19	0	19	0	--	--	--	0/19	--	--	160000	0	2300000	0	3400000	0	10000000	0
trans-1,3-Dichloropropene	ug/kg	19	0	19	0	--	--	--	0/19	--	--	NS	--	NS	--	NS	--	NS	NA
Trichloroethene	ug/kg	19	2	17	0	43	56	49.5	2/19	43 - 56	SB60	410	0	1900	0	85000	0	140000	0
Trichlorofluoromethane	ug/kg	19	0	19	0	--	--	--	0/19	--	--	2300000	0	35000000	0	10000000	0	10000000	0
Vinyl chloride	ug/kg	19	0	19	0	--	--	--	0/19	--	--	59	0	1700	0	480	0	600000	0
Semi-Volatile Organic Compounds																			
1,1'-Biphenyl	ug/kg	19	0	19	0	--	--	--	0/19	--	--	4700	0	20000	0	8500000	0	10000000	0
1,2,4,5-Tetrachlorobenzene	ug/kg	19	0	19	0	--	--	--	0/19	--	--	2300	0	35000	0	NS	--	NS	NA
1,4-Dioxane	ug/kg	19	0	19	0	--	--	--	0/19	--	--	5300	0	24000	0	110000	0	3300000	0
2,2'-Oxybis(1-chloropropane)	ug/kg	19	0	19	0	--	--	--	0/19	--	--	310000	0	4700000	0	NS	--	NS	NA
2,3,4,6-Tetrachlorophenol	ug/kg	19	0	19	0	--	--	--	0/19	--	--	190000	0	2500000	0	NS	--	NS	NA
2,4,5-Trichlorophenol	ug/kg	19	0	19	0	--	--	--	0/19	--	--	630000	0	8200000	0	10000000	0	10000000	0
2,4,6-Trichlorophenol	ug/kg	19	0	19	0	--	--	--	0/19	--	--	6300	0	82000	0	130000	0	240000	0
2,4-Dichlorophenol	ug/kg	19	0	19	0	--	--	--	0/19	--	--	19000	0	250000	0	400000	0	710000	0
2,4-Dimethylphenol	ug/kg	19	0	19	0	--	--	--	0/19	--	--	130000	0	1600000	0	2700000	0	10000000	0
2,4-Dinitrophenol	ug/kg	19	0	19	0	--	--	--	0/19	--	--	13000	0	160000	0	270000	0	4800000	0
2,4-Dinitrotoluene	ug/kg	19	0	19	0	--	--	--	0/19	--	--	1700	0	7400	0	35000	0	480000	0
2,6-Dinitrotoluene	ug/kg	19	0	19	0	--	--	--	0/19	--	--	360	0	1500	0	16000	0	490000	0
2-Chloronaphthalene	ug/kg	19	0	19	0	--	--	--	0/19	--	--	480000	0	6000000	0	NS	--	NS	NA
2-Chlorophenol	ug/kg	19	0	19	0	--	--	--	0/19	--	--	39000	0	580000	0	850000	0	2500000	0
2-Methylnaphthalene	ug/kg	19	17	2	0	3.7	270	36.2	17/19	3.7 - 270	SB42	24000	0	300000	0	500000	0	600000	0
2-Methylphenol	ug/kg	19	0	19	0	--	--	--	0/19	--	--	320000	0	4100000	0	6700000	0	10000000	0
2-Nitroaniline	ug/kg	19	0	19	0	--	--	--	0/19	--	--	63000	0	800000	0	NS	--	NS	NA
2-Nitrophenol	ug/kg	19	0	19	0	--	--	--	0/19	--	--	NS	--	NS	--	NS	--	NS	NA
3,3'-Dichlorobenzidine	ug/kg	19	0	19	0	--	--	--	0/19	--	--	1200	0	5100	0	24000	0	740000	0
3-Nitroaniline	ug/kg	19	0	19	0	--	--	--	0/19	--	--	NS	--	NS	--	NS	--	NS	NA

Color - Standard Exceeded; NS - No Standard; -- Not Applicable

Nobis Engineering, Inc.

Table SO-2
Surface Soil
Summary Statistics and Criteria Comparisons
Keddy Mill Superfund Site
Windham, Maine
Page 3 of 8

Chemical	Units	Analyz ed	Detect s	Non Detects	Reject s	Min Det	Max Det	Avg Det	Freq Of Det	Det Range	Max Location	RSL Soil Res. - May 2016		RSL Soil Comm./Ind. - May 2016		Maine RAGs Soil Res. - Feb 2016		Maine RAGs Soil Const. Worker - Feb 2016	
												Value	Exceedances	Value	Exceedances	Value	Exceedances	Value	Exceedances
4,6-Dinitro-2-methylphenol	ug/kg	19	0	19	0	--	--	--	0/19	--	--	510	0	6600	0	NS	--	NS	NA
4-Bromophenyl-phenylether	ug/kg	19	0	19	0	--	--	--	0/19	--	--	NS	--	NS	--	NS	--	NS	NA
4-Chloro-3-methylphenol	ug/kg	19	0	19	0	--	--	--	0/19	--	--	630000	0	8200000	0	NS	--	NS	NA
4-Chloroaniline	ug/kg	19	0	19	0	--	--	--	0/19	--	--	2700	0	11000	0	54000	0	120000	0
4-Chlorophenyl-phenylether	ug/kg	19	0	19	0	--	--	--	0/19	--	--	NS	--	NS	--	NS	--	NS	NA
4-Methylphenol	ug/kg	19	0	19	0	--	--	--	0/19	--	--	630000	0	8200000	0	670000	0	10000000	0
4-Nitroaniline	ug/kg	19	0	19	0	--	--	--	0/19	--	--	25000	0	110000	0	NS	--	NS	NA
4-Nitrophenol	ug/kg	19	0	19	0	--	--	--	0/19	--	--	NS	--	NS	--	NS	--	NS	NA
Acenaphthene	ug/kg	19	13	6	0	3.4	230	48	13/19	3.4 - 230	SB41	360000	0	4500000	0	7500000	0	9800000	0
Acenaphthylene	ug/kg	19	14	5	0	9.6	130	53.3	14/19	9.6 - 130	SB52	NS	--	NS	--	7500000	0	10000000	0
Acetophenone	ug/kg	19	0	19	0	--	--	--	0/19	--	--	780000	0	12000000	0	NS	--	NS	NA
Anthracene	ug/kg	19	17	2	0	3.3	390	101	17/19	3.3 - 390	SB41	1800000	0	23000000	0	10000000	0	3800000	0
Atrazine	ug/kg	19	0	19	0	--	--	--	0/19	--	--	2400	0	10000	0	47000	0	710000	0
Benzaldehyde	ug/kg	19	0	19	0	--	--	--	0/19	--	--	170000	0	820000	0	NS	--	NS	NA
Benzo(a)anthracene	ug/kg	19	19	0	0	4.6	1100	246	19/19	4.6 - 1100	SB60	160	8	2900	0	2600	0	430000	0
Benzo(a)pyrene	ug/kg	19	18	1	0	2.9	970	252	18/19	2.9 - 970	SB60	16	16	290	7	260	7	43000	0
Benzo(b)fluoranthene	ug/kg	19	18	1	0	6.5	1000	228	18/19	6.5 - 1000	SB60	160	8	2900	0	2600	0	430000	0
Benzo(g,h,i)perylene	ug/kg	19	18	1	0	6.4	610	181	18/19	6.4 - 610	SB60	NS	--	NS	--	3700000	0	10000000	0
Benzo(k)fluoranthene	ug/kg	19	18	1	0	4.9	820	202	18/19	4.9 - 820	SB60	1600	0	29000	0	26000	0	4300000	0
Bis(2-chloroethoxy)methane	ug/kg	19	0	19	0	--	--	--	0/19	--	--	19000	0	250000	0	NS	--	NS	NA
Bis(2-chloroethyl)ether	ug/kg	19	0	19	0	--	--	--	0/19	--	--	230	0	1000	0	9800	0	250000	0
Bis(2-ethylhexyl)phthalate	ug/kg	19	3	16	0	77	370	179	3/19	77 - 370	SB43	39000	0	160000	0	770000	0	10000000	0
Butylbenzylphthalate	ug/kg	19	0	19	0	--	--	--	0/19	--	--	290000	0	1200000	0	5700000	0	10000000	0
Caprolactam	ug/kg	19	0	19	0	--	--	--	0/19	--	--	3100000	0	40000000	0	NS	--	NS	NA
Carbazole	ug/kg	19	1	18	0	130	130	130	1/19	130 - 130	SB41	NS	--	NS	--	540000	0	10000000	0
Chrysene	ug/kg	19	19	0	0	5.1	1200	281	19/19	5.1 - 1200	SB60	16000	0	290000	0	260000	0	10000000	0
Dibenz(a,h)anthracene	ug/kg	19	16	3	0	2.9	590	134	16/19	2.9 - 590	SB60	16	14	290	2	260	2	43000	0
Dibenzofuran	ug/kg	19	2	17	0	80	100	90	2/19	80 - 100	SB41	7300	0	100000	0	130000	0	950000	0
Diethylphthalate	ug/kg	19	0	19	0	--	--	--	0/19	--	--	5100000	0	66000000	0	10000000	0	10000000	0
Dimethylphthalate	ug/kg	19	0	19	0	--	--	--	0/19	--	--	NS	--	NS	--	NS	--	NS	NA
Di-N-Butylphthalate	ug/kg	19	0	19	0	--	--	--	0/19	--	--	630000	0	8200000	0	10000000	0	10000000	0
Di-N-Octyl Phthalate	ug/kg	19	0	19	0	--	--	--	0/19	--	--	63000	0	820000	0	1600000	0	2900000	0

Color - Standard Exceeded; NS - No Standard; -- Not Applicable

Nobis Engineering, Inc.

Table SO-2
Surface Soil
Summary Statistics and Criteria Comparisons
Keddy Mill Superfund Site
Windham, Maine
Page 4 of 8

Chemical	Units	Analyz ed	Detect s	Non Detects	Reject s	Min Det	Max Det	Avg Det	Freq Of Det	Det Range	Max Location	RSL Soil Res. - May 2016		RSL Soil Comm./Ind. - May 2016		Maine RAGs Soil Res. - Feb 2016		Maine RAGs Soil Const. Worker - Feb 2016	
												Value	Exceedances	Value	Exceedances	Value	Exceedances	Value	Exceedances
Fluoranthene	ug/kg	19	19	0	0	6.3	2100	488	19/19	6.3 - 2100	SB41	240000	0	3000000	0	5000000	0	10000000	0
Fluorene	ug/kg	19	14	5	0	3	220	37.9	14/19	3 - 220	SB41	240000	0	3000000	0	5000000	0	10000000	0
Hexachlorobenzene	ug/kg	19	0	19	0	--	--	--	0/19	--	--	210	0	960	0	6800	0	190000	0
Hexachlorobutadiene	ug/kg	19	0	19	0	--	--	--	0/19	--	--	1200	0	5300	0	130000	0	240000	0
Hexachlorocyclopentadiene	ug/kg	19	0	19	0	--	--	--	0/19	--	--	180	0	750	0	NS	--	NS	NA
Hexachloroethane	ug/kg	19	0	19	0	--	--	--	0/19	--	--	1800	0	8000	0	93000	0	2400000	0
Indeno(1,2,3-cd)pyrene	ug/kg	19	18	1	0	6.1	590	173	18/19	6.1 - 590	SB60	160	7	2900	0	2600	0	430000	0
Isophorone	ug/kg	19	0	19	0	--	--	--	0/19	--	--	570000	0	2400000	0	NS	--	NS	NA
Naphthalene	ug/kg	19	16	3	0	3.7	240	34.7	16/19	3.7 - 240	SB42	3800	0	17000	0	2500000	0	10000000	0
Nitrobenzene	ug/kg	19	0	19	0	--	--	--	0/19	--	--	5100	0	22000	0	NS	--	NS	NA
N-Nitroso-di-n-propylamine (NDPA)	ug/kg	19	0	19	0	--	--	--	0/19	--	--	78	0	330	0	NS	--	NS	NA
N-Nitrosodiphenylamine	ug/kg	19	0	19	0	--	--	--	0/19	--	--	110000	0	470000	0	NS	--	NS	NA
Pentachlorophenol	ug/kg	19	0	19	0	--	--	--	0/19	--	--	1000	0	4000	0	20000	0	620000	0
Phenanthrene	ug/kg	19	19	0	0	5	2000	324	19/19	5 - 2000	SB41	NS	--	NS	--	3700000	0	8900000	0
Phenol	ug/kg	19	0	19	0	--	--	--	0/19	--	--	1900000	0	25000000	0	10000000	0	10000000	0
Pyrene	ug/kg	19	19	0	0	9	1800	436	19/19	9 - 1800	SB60	180000	0	2300000	0	3700000	0	10000000	0
PESTICIDES/PCB (AROCLORS)																			
4,4'-DDD	ug/kg	19	0	19	0	--	--	--	0/19	--	--	2300	0	9600	0	45000	0	1400000	0
4,4'-DDE	ug/kg	19	0	19	0	--	--	--	0/19	--	--	2000	0	9300	0	32000	0	980000	0
4,4'-DDT	ug/kg	19	0	19	0	--	--	--	0/19	--	--	1900	0	8500	0	38000	0	140000	0
Aldrin	ug/kg	19	0	19	0	--	--	--	0/19	--	--	39	0	180	0	640	0	9500	0
alpha-BHC	ug/kg	19	0	19	0	--	--	--	0/19	--	--	86	0	360	0	1700	0	53000	0
Aroclor 1016	ug/kg	39	0	39	0	--	--	--	0/39	--	--	410	0	5100	0	4900	0	46000	0
Aroclor 1221	ug/kg	39	0	39	0	--	--	--	0/39	--	--	200	0	830	0	NS	--	NS	NA
Aroclor 1232	ug/kg	39	0	39	0	--	--	--	0/39	--	--	170	0	720	0	NS	--	NS	NA
Aroclor 1242	ug/kg	39	0	39	0	--	--	--	0/39	--	--	230	0	950	0	NS	--	NS	NA
Aroclor 1248	ug/kg	39	5	34	0	340	13000	3220	5/39	340 - 13000	SB09	230	5	950	2	NS	--	NS	NA
Aroclor 1254	ug/kg	39	25	14	0	34	13000	1380	25/39	34 - 13000	SB21	120	18	970	5	NS	--	NS	NA
Aroclor 1260	ug/kg	39	7	32	0	7.4	340	104	7/39	7.4 - 340	SB08	240	1	990	0	NS	--	NS	NA
Aroclor 1262	ug/kg	39	0	39	0	--	--	--	0/39	--	--	NS	--	NS	--	NS	--	NS	NA
Aroclor 1268	ug/kg	39	0	39	0	--	--	--	0/39	--	--	NS	--	NS	--	NS	--	NS	NA
Aroclor, Total	ug/kg	39	29	10	0	7.4	22400	1770	29/39	7.4 - 22400	SB09	230	14	940	7	2400	4	6500	2
beta-BHC	ug/kg	19	0	19	0	--	--	--	0/19	--	--	300	0	1300	0	6000	0	140000	0

Color - Standard Exceeded; NS - No Standard; -- Not Applicable

Nobis Engineering, Inc.

Table SO-2
Surface Soil
Summary Statistics and Criteria Comparisons
Keddy Mill Superfund Site
Windham, Maine
Page 5 of 8

Chemical	Units	Analyz ed	Detect s	Non Detects	Reject s	Min Det	Max Det	Avg Det	Freq Of Det	Det Range	Max Location	RSL Soil Res. - May 2016		RSL Soil Comm./Ind. - May 2016		Maine RAGs Soil Res. - Feb 2016		Maine RAGs Soil Const. Worker - Feb 2016	
												Value	Exceedances	Value	Exceedances	Value	Exceedances	Value	Exceedances
cis-Chlordane	ug/kg	19	0	19	0	--	--	--	0/19	--	--	NS	--	NS	--	NS	--	NS	NA
delta-BHC	ug/kg	19	0	19	0	--	--	--	0/19	--	--	NS	--	NS	--	NS	--	NS	NA
Dieldrin	ug/kg	19	0	19	0	--	--	--	0/19	--	--	34	0	140	0	680	0	21000	0
Endosulfan I	ug/kg	19	0	19	0	--	--	--	0/19	--	--	NS	--	NS	--	800000	0	1400000	0
Endosulfan II	ug/kg	19	0	19	0	--	--	--	0/19	--	--	NS	--	NS	--	800000	0	1400000	0
Endosulfan Sulfate	ug/kg	19	0	19	0	--	--	--	0/19	--	--	NS	--	NS	--	NS	--	NS	NA
Endrin	ug/kg	19	0	19	0	--	--	--	0/19	--	--	1900	0	25000	0	40000	0	480000	0
Endrin Aldehyde	ug/kg	19	0	19	0	--	--	--	0/19	--	--	NS	--	NS	--	NS	--	NS	NA
Endrin Ketone	ug/kg	19	0	19	0	--	--	--	0/19	--	--	NS	--	NS	--	NS	--	NS	NA
gamma-BHC (Lindane)	ug/kg	19	0	19	0	--	--	--	0/19	--	--	570	0	2500	0	610	0	2800	0
Heptachlor	ug/kg	19	0	19	0	--	--	--	0/19	--	--	130	0	630	0	1300	0	24000	0
Heptachlor Epoxide	ug/kg	19	0	19	0	--	--	--	0/19	--	--	70	0	330	0	1200	0	3100	0
Methoxychlor	ug/kg	19	0	19	0	--	--	--	0/19	--	--	32000	0	410000	0	670000	0	1200000	0
Toxaphene	ug/kg	19	0	19	0	--	--	--	0/19	--	--	490	0	2100	0	NS	--	NS	NA
trans-Chlordane	ug/kg	19	0	19	0	--	--	--	0/19	--	--	NS	--	NS	--	NS	--	NS	NA
PCB CONGENERS AND HOMOLOGUES																			
PCB-105	ng/kg	49	49	0	0	26	2200000	106000	49/49	26 - 2200000	SB60	120000	7	490000	1	NS	--	NS	NA
PCB-114	ng/kg	49	41	8	0	3.3	160000	7260	41/49	3.3 - 160000	SB60	120000	1	500000	0	NS	--	NS	NA
PCB-118	ng/kg	49	49	0	0	110	3000000	206000	49/49	110 - 3000000	SB60	120000	17	490000	6	NS	--	NS	NA
PCB-123	ng/kg	47	43	4	2	4.8	89000	5050	43/47	4.8 - 89000	SB60	120000	0	490000	0	NS	--	NS	NA
PCB-126	ng/kg	49	42	7	0	3.1	27000	1280	42/49	3.1 - 27000	SB60	36	36	150	28	NS	--	NS	NA
PCB-156/157	ng/kg	49	49	0	0	53	170000	26600	49/49	53 - 170000	SB21	NS	--	NS	--	NS	--	NS	NA
PCB-167	ng/kg	49	49	0	0	23	61000	8730	49/49	23 - 61000	SB21	120000	0	510000	0	NS	--	NS	NA
PCB-169	ng/kg	49	23	26	0	1.2	110	24.4	23/49	1.2 - 110	SB23	120	0	510	0	NS	--	NS	NA
PCB-189	ng/kg	49	44	5	0	3.6	6800	1160	44/49	3.6 - 6800	SB21	130000	0	520000	0	NS	--	NS	NA
PCB-77	ng/kg	49	47	2	0	17	1300000	39800	47/49	17 - 1300000	SB60	38000	5	160000	1	NS	--	NS	NA
PCB-81	ng/kg	49	31	18	0	8.2	70000	3330	31/49	8.2 - 70000	SB60	12000	1	48000	1	NS	--	NS	NA
PCBC Total TEQ	ng/kg	49	49	0	0	0.008	3100	126	49/49	0.0084 - 3100	SB60	230000	0	940000	0	2400000	0	6500000	0
Total DICB	ng/kg	19	18	1	0	120	2800000	181000	18/19	120 - 2800000	SB60	NS	--	NS	--	NS	--	NS	NA

Color - Standard Exceeded; NS - No Standard; -- Not Applicable

Nobis Engineering, Inc.

**Table SO-2
Surface Soil
Summary Statistics and Criteria Comparisons
Keddy Mill Superfund Site
Windham, Maine
Page 6 of 8**

Chemical	Units	Analyz ed	Detect s	Non Detects	Reject s	Min Det	Max Det	Avg Det	Freq Of Det	Det Range	Max Location	RSL Soil Res. - May 2016		RSL Soil Comm./Ind. - May 2016		Maine RAGs Soil Res. - Feb 2016		Maine RAGs Soil Const. Worker - Feb 2016	
												Value	Exceedances	Value	Exceedances	Value	Exceedances	Value	Exceedances
Total HpCB	ng/kg	19	19	0	0	310	620000	86500	19/19	310 - 620000	SB60	NS	--	NS	--	NS	--	NS	NA
Total HxCB	ng/kg	19	19	0	0	1700	3100000	431000	19/19	1700 - 3100000	SB60	NS	--	NS	--	NS	--	NS	NA
Total MoCB	ng/kg	19	14	5	0	23	43000	4540	14/19	23 - 43000	SB60	NS	--	NS	--	NS	--	NS	NA
Total NoCB	ng/kg	19	17	2	0	21	43000	6530	17/19	21 - 43000	SB60	NS	--	NS	--	NS	--	NS	NA
Total OcCB	ng/kg	19	18	1	0	28	170000	21800	18/19	28 - 170000	SB60	NS	--	NS	--	NS	--	NS	NA
Total PCB Homologues	ng/kg	19	19	0	0	4000	270000000	16600000	19/19	4000 - 270000000	SB60	230000	12	940000	7	2400000	5	6500000	4
Total PeCB	ng/kg	19	19	0	0	640	29000000	2080000	19/19	640 - 29000000	SB60	NS	--	NS	--	NS	--	NS	NA
Total TeCB	ng/kg	19	19	0	0	680	160000000	9440000	19/19	680 - 160000000	SB60	NS	--	NS	--	NS	--	NS	NA
Total TrCB	ng/kg	19	19	0	0	370	83000000	4770000	19/19	370 - 83000000	SB60	NS	--	NS	--	NS	--	NS	NA
PCDDs/PCDFs																			
1,2,3,4,6,7,8,9-Octachlorodibenzofuran	ng/kg	10	10	0	0	7.7	1590	205	10/10	7.7 - 1590	SB50	NS	--	NS	--	NS	--	NS	NA
1,2,3,4,6,7,8,9-Octachlorodibenzo-p-dioxin	ng/kg	10	10	0	0	107	5740	1150	10/10	107 - 5740	SB50	NS	--	NS	--	NS	--	NS	NA
1,2,3,4,6,7,8-Heptachlorodibenzofuran	ng/kg	10	10	0	0	3.61	520	82.8	10/10	3.61 - 520	SB50	NS	--	NS	--	NS	--	NS	NA
1,2,3,4,6,7,8-Heptachlorodibenzo-p-dioxin	ng/kg	10	10	0	0	14.6	1350	202	10/10	14.6 - 1350	SB50	NS	--	NS	--	NS	--	NS	NA
1,2,3,4,7,8,9-Heptachlorodibenzofuran	ng/kg	10	10	0	0	0.323	23.8	5.16	10/10	0.323 - 23.8	SB50	NS	--	NS	--	NS	--	NS	NA
1,2,3,4,7,8-Hexachlorodibenzofuran	ng/kg	10	10	0	0	0.382	37.3	10.4	10/10	0.382 - 37.3	SB18	NS	--	NS	--	NS	--	NS	NA
1,2,3,4,7,8-Hexachlorodibenzo-p-dioxin	ng/kg	10	10	0	0	0.321	38	5.03	10/10	0.321 - 38	SB50	NS	--	NS	--	NS	--	NS	NA
1,2,3,6,7,8-Hexachlorodibenzofuran	ng/kg	10	10	0	0	0.266	16.3	5.87	10/10	0.266 - 16.3	SB50	NS	--	NS	--	NS	--	NS	NA
1,2,3,6,7,8-Hexachlorodibenzo-p-dioxin	ng/kg	10	10	0	0	0.562	67.8	11.3	10/10	0.562 - 67.8	SB50	NS	--	NS	--	NS	--	NS	NA
1,2,3,7,8,9-Hexachlorodibenzofuran	ng/kg	10	6	4	0	0.246	3.86	1.25	6/10	0.246 - 3.86	SB53	NS	--	NS	--	NS	--	NS	NA
1,2,3,7,8,9-Hexachlorodibenzo-p-dioxin	ng/kg	10	10	0	0	0.696	63.1	9.73	10/10	0.696 - 63.1	SB50	NS	--	NS	--	NS	--	NS	NA
1,2,3,7,8-Pentachlorodibenzofuran	ng/kg	10	8	2	0	0.251	15.5	6.62	8/10	0.251 - 15.5	SB15	NS	--	NS	--	NS	--	NS	NA
1,2,3,7,8-Pentachlorodibenzo-p-dioxin	ng/kg	10	7	3	0	0.224	35.7	6.54	7/10	0.224 - 35.7	SB50	NS	--	NS	--	NS	--	NS	NA
2,3,4,6,7,8-Hexachlorodibenzofuran	ng/kg	10	9	1	0	0.386	19.9	5.44	9/10	0.386 - 19.9	SB50	NS	--	NS	--	NS	--	NS	NA
2,3,4,7,8-Pentachlorodibenzofuran	ng/kg	10	9	1	0	0.294	17.4	7.79	9/10	0.294 - 17.4	SB15	NS	--	NS	--	NS	--	NS	NA
2,3,7,8-Tetrachlorodibenzofuran	ng/kg	10	9	1	0	0.375	64.1	22.9	9/10	0.375 - 64.1	SB15	NS	--	NS	--	NS	--	NS	NA

Color - Standard Exceeded; NS - No Standard; -- Not Applicable

Nobis Engineering, Inc.

Table SO-2
Surface Soil
Summary Statistics and Criteria Comparisons
Keddy Mill Superfund Site
Windham, Maine
Page 7 of 8

Chemical	Units	Analyz ed	Detect s	Non Detects	Reject s	Min Det	Max Det	Avg Det	Freq Of Det	Det Range	Max Location	RSL Soil Res. - May 2016		RSL Soil Comm./Ind. - May 2016		Maine RAGs Soil Res. - Feb 2016		Maine RAGs Soil Const. Worker - Feb 2016	
												Value	Exceedances	Value	Exceedances	Value	Exceedances	Value	Exceedances
2,3,7,8-Tetrachlorodibenzo-p-dioxin	ng/kg	10	4	6	0	0.373	9.22	2.64	4/10	0.373 - 9.22	SB50	4.8	1	22	0	100	0	3100	0
2,3,7,8-TCDD - Toxicity Equivalent	ng/kg	10	10	0	0	0.611	91.4	18	10/10	0.611 - 91.4	SB50	4.8	5	22	2	100	0	3100	0
Heptachlorodibenzofuran (total)	ng/kg	10	10	0	0	9.29	1500	219	10/10	9.29 - 1500	SB50	NS	--	NS	--	NS	--	NS	NA
Heptachlorodibenzo-p-dioxin (total)	ng/kg	10	10	0	0	28.6	2280	361	10/10	28.6 - 2280	SB50	NS	--	NS	--	NS	--	NS	NA
Hexachlorodibenzofuran (total)	ng/kg	10	10	0	0	4.68	529	106	10/10	4.68 - 529	SB50	NS	--	NS	--	NS	--	NS	NA
Hexachlorodibenzo-p-dioxin (total)	ng/kg	10	10	0	0	3.86	1580	193	10/10	3.86 - 1580	SB50	100	2	470	1	NS	--	NS	NA
Pentachlorodibenzofuran (total)	ng/kg	10	9	1	0	3.24	195	95.3	9/10	3.24 - 195	SB15	NS	--	NS	--	NS	--	NS	NA
Pentachlorodibenzo-p-dioxin (total)	ng/kg	10	7	3	0	1.55	480	75.2	7/10	1.55 - 480	SB50	NS	--	NS	--	NS	--	NS	NA
Tetrachlorodibenzo(p)dioxin (total)	ng/kg	10	7	3	0	0.277	54	11.3	7/10	0.277 - 54	SB50	NS	--	NS	--	NS	--	NS	NA
Tetrachlorodibenzofuran (total)	ng/kg	10	9	1	0	3.45	592	200	9/10	3.45 - 592	SB15	NS	--	NS	--	NS	--	NS	NA
METALS AND INORGANICS																			
Aluminum	mg/kg	19	19	0	0	3520	33300	10700	19/19	3520 - 33300	SB54	7700	10	110000	0	170000	0	310000	0
Antimony	mg/kg	19	12	7	0	1.4	3.6	2.08	12/19	1.4 - 3.6	SB41	3.1	1	47	0	68	0	120	0
Arsenic	mg/kg	19	19	0	0	1.3	63.3	14.7	19/19	1.3 - 63.3	SB50	0.68	19	3	18	1.4	18	42	1
Barium	mg/kg	19	19	0	0	19.1	246	80.4	19/19	19.1 - 246	SB54	1500	0	22000	0	10000	0	10000	0
Beryllium	mg/kg	19	19	0	0	0.26	1.5	0.706	19/19	0.26 - 1.5	SB50	16	0	230	0	340	0	620	0
Cadmium	mg/kg	19	19	0	0	0.17	7.1	1.78	19/19	0.17 - 7.1	SB59	7.1	0	98	0	11	0	19	0
Calcium	mg/kg	19	19	0	0	567	4700	2190	19/19	567 - 4700	SB54	NS	--	NS	--	NS	--	NS	NA
Chromium	mg/kg	19	19	0	0	6.8	214	60	19/19	6.8 - 214	SB49	12000	0	180000	0	NS	--	NS	NA
Chromium-Hexavalent	mg/kg	12	0	12	0	--	--	--	0/12	--	--	0.3	0	6.3	0	510	0	2800	0
Cobalt	mg/kg	19	19	0	0	2.7	22.7	9.07	19/19	2.7 - 22.7	SB54	2.3	19	35	0	51	0	920	0
Copper	mg/kg	19	19	0	0	8.2	479	104	19/19	8.2 - 479	SB51	310	1	4700	0	2400	0	4300	0
Cyanide	mg/kg	19	7	12	0	0.06	0.28	0.2	7/19	0.06 - 0.28	SB46; SB54	2.3	0	15	0	100	0	1900	0
Iron	mg/kg	19	19	0	0	8230	167000	44200	19/19	8230 - 167000	SB49	5500	19	82000	3	120000	2	220000	0
Lead	mg/kg	19	19	0	0	5.6	310	88.9	19/19	5.6 - 310	SB41	400	0	800	0	340	0	950	0
Magnesium	mg/kg	19	19	0	0	1870	21000	4690	19/19	1870 - 21000	SB54	NS	--	NS	--	NS	--	NS	NA

Color - Standard Exceeded; NS - No Standard; -- Not Applicable

Nobis Engineering, Inc.

**Table SO-2
Surface Soil
Summary Statistics and Criteria Comparisons
Keddy Mill Superfund Site
Windham, Maine
Page 8 of 8**

Chemical	Units	Analyz ed	Detect s	Non Detects	Reject s	Min Det	Max Det	Avg Det	Freq Of Det	Det Range	Max Location	RSL Soil Res. - May 2016		RSL Soil Comm./Ind. - May 2016		Maine RAGs Soil Res. - Feb 2016		Maine RAGs Soil Const. Worker - Feb 2016	
												Value	Exceedances	Value	Exceedances	Value	Exceedances	Value	Exceedances
Manganese	mg/kg	19	19	0	0	95.1	1640	485	19/19	95.1 - 1640	SB49	180	16	2600	0	4100	0	7400	0
Mercury	mg/kg	19	17	2	0	0.015	0.45	0.129	17/19	0.015 - 0.45	SB51	1.1	0	4.6	0	51	0	930	0
Nickel	mg/kg	19	19	0	0	7.8	150	44.5	19/19	7.8 - 150	SB53	150	0	2200	0	510	0	930	0
Potassium	mg/kg	19	19	0	0	798	27600	3350	19/19	798 - 27600	SB54	NS	--	NS	--	NS	--	NS	NA
Selenium	mg/kg	19	6	13	0	0.41	1.8	0.717	6/19	0.41 - 1.8	SB50	39	0	580	0	850	0	1500	0
Silver	mg/kg	19	1	18	0	0.47	0.47	0.47	1/19	0.47 - 0.47	SB60	39	0	580	0	850	0	1500	0
Sodium	mg/kg	19	19	0	0	80.1	661	185	19/19	80.1 - 661	SB54	NS	--	NS	--	NS	--	NS	NA
Thallium	mg/kg	19	2	17	0	0.61	0.89	0.75	2/19	0.61 - 0.89	SB54	0.078	2	1.2	0	NS	--	NS	NA
Vanadium	mg/kg	19	19	0	0	11	102	40.7	19/19	11 - 102	SB54	39	9	580	0	1200	0	2200	0
Zinc	mg/kg	19	19	0	0	23.7	400	129	19/19	23.7 - 400	SB51	2300	0	35000	0	10000	0	10000	0
Per- and Polyfluoroalkyl Substances																			
Perfluorobutane Sulfonate	ng/g	21	0	21	0	--	--	--	0/21	--	--	NS	--	NS	--	NS	--	NS	NA
Perfluorobutanoic Acid	ng/g	21	0	21	0	--	--	--	0/21	--	--	NS	--	NS	--	NS	--	NS	NA
Perfluorodecane Sulfonate	ng/g	21	0	21	0	--	--	--	0/21	--	--	NS	--	NS	--	NS	--	NS	NA
Perfluorodecanoic Acid	ng/g	21	0	21	0	--	--	--	0/21	--	--	NS	--	NS	--	NS	--	NS	NA
Perfluorododecanoic Acid	ng/g	21	0	21	0	--	--	--	0/21	--	--	NS	--	NS	--	NS	--	NS	NA
Perfluoroheptane sulfonate	ng/g	21	0	21	0	--	--	--	0/21	--	--	NS	--	NS	--	NS	--	NS	NA
Perfluoroheptanoic acid (PFHpA)	ng/g	21	0	21	0	--	--	--	0/21	--	--	NS	--	NS	--	NS	--	NS	NA
Perfluorohexane Sulfonate	ng/g	21	0	21	0	--	--	--	0/21	--	--	NS	--	NS	--	NS	--	NS	NA
Perfluorohexanoic Acid (PFHxA)	ng/g	21	3	18	0	1.2	5.3	2.73	3/21	1.2 - 5.3	SB52	NS	--	NS	--	NS	--	NS	NA
Perfluorononanoic acid (PFNA)	ng/g	21	0	21	0	--	--	--	0/21	--	--	NS	--	NS	--	NS	--	NS	NA
Perfluoro-n-tetradecanoic acid	ng/g	21	0	21	0	--	--	--	0/21	--	--	NS	--	NS	--	NS	--	NS	NA
Perfluoro-n-tridecanoic acid	ng/g	21	0	21	0	--	--	--	0/21	--	--	NS	--	NS	--	NS	--	NS	NA
Perfluorooctane Sulfonate (PFOS)	ng/g	21	4	17	0	1.4	3.9	2.12	4/21	1.4 - 3.9	SB41	NS	--	NS	--	11000	0	19000	0
Perfluorooctanoic acid (PFOA)	ng/g	21	0	21	0	--	--	--	0/21	--	--	NS	--	NS	--	800	0	1400	0
Perfluoropentanoic Acid	ng/g	21	0	21	0	--	--	--	0/21	--	--	NS	--	NS	--	NS	--	NS	NA
Perfluoroundecanoic Acid	ng/g	21	0	21	0	--	--	--	0/21	--	--	NS	--	NS	--	NS	--	NS	NA

Color - Standard Exceeded; NS - No Standard; -- Not Applicable

Nobis Engineering, Inc.

Table SO-3
Subsurface Soil
Summary Statistics and Criteria Comparisons
Keddy Mill Superfund Site
Windham, Maine
Page 1 of 8

Chemical	Units	Analyz ed	Detects	Non Detects	Rejects	Min Det	Max Det	Avg Det	Freq Of Det	Det Range	Max Location	RSL Soil Res. - May 2016		RSL Soil Comm./Ind. - May 2016		Maine RAGs Soil Res. - Feb 2016		Maine RAGs Soil Const. Worker - Feb 2016	
												Value	Exceedances	Value	Exceedances	Value	Exceedances	Value	Exceedances
Volatile Organic Compounds																			
1,1,1-Trichloroethane	ug/kg	57	2	55	0	8.7	12	10.4	2/57	8.7 - 12	SB52	810000	0	3600000	0	10000000	0	10000000	0
1,1,2,2-Tetrachloroethane	ug/kg	57	0	57	0	--	--	--	0/57	--	--	600	0	2700	0	71000	0	2200000	0
1,1,2-Trichloro-1,2,2-trifluoroethane	ug/kg	57	0	57	0	--	--	--	0/57	--	--	4000000	0	17000000	0	NS	--	NS	NA
1,1,2-Trichloroethane	ug/kg	57	0	57	0	--	--	--	0/57	--	--	150	0	630	0	250000	0	5400000	0
1,1-Dichloroethane	ug/kg	57	0	57	0	--	--	--	0/57	--	--	3600	0	16000	0	2500000	0	10000000	0
1,1-Dichloroethene	ug/kg	57	0	57	0	--	--	--	0/57	--	--	23000	0	100000	0	8500000	0	10000000	0
1,2,3-Trichlorobenzene	ug/kg	57	0	57	0	--	--	--	0/57	--	--	6300	0	93000	0	1700000	0	420000	0
1,2,4-Trichlorobenzene	ug/kg	57	0	57	0	--	--	--	0/57	--	--	5800	0	26000	0	490000	0	430000	0
1,2-Dibromo-3-chloropropane	ug/kg	57	0	57	0	--	--	--	0/57	--	--	5.3	0	64	0	3200	0	51000	0
1,2-Dibromoethane	ug/kg	57	0	57	0	--	--	--	0/57	--	--	36	0	160	0	7100	0	180000	0
1,2-Dichlorobenzene	ug/kg	57	2	55	0	45	1000	522	2/57	45 - 1000	SB42	180000	0	930000	0	5100000	0	10000000	0
1,2-Dichloroethane	ug/kg	57	0	57	0	--	--	--	0/57	--	--	460	0	2000	0	160000	0	3700000	0
1,2-Dichloropropane	ug/kg	57	0	57	0	--	--	--	0/57	--	--	1000	0	4400	0	390000	0	5500000	0
1,3-Dichlorobenzene	ug/kg	57	1	56	0	370	370	370	1/57	370 - 370	SB42	NS	--	NS	--	34000	0	6200000	0
1,4-Dichlorobenzene	ug/kg	57	2	55	0	17	350	184	2/57	17 - 350	SB42	2600	0	11000	0	2600000	0	10000000	0
1,4-Dioxane	ug/kg	0	0	0	23	--	--	--	0/0	--	--	5300	0	24000	0	110000	0	3300000	0
2-Butanone	ug/kg	57	13	44	0	6	38	17.3	13/57	6 - 38	SS-11	2700000	0	19000000	0	10000000	0	10000000	0
2-Hexanone	ug/kg	57	0	57	0	--	--	--	0/57	--	--	20000	0	130000	0	NS	--	NS	NA
4-Methyl-2-pentanone	ug/kg	44	0	44	13	--	--	--	0/44	--	--	3300000	0	14000000	0	10000000	0	10000000	0
Acetone	ug/kg	57	25	32	0	10	420	138	25/57	10 - 420	SS-11	6100000	0	67000000	0	10000000	0	10000000	0
Benzene	ug/kg	57	0	57	0	--	--	--	0/57	--	--	1200	0	5100	0	85000	0	150000	0
Bromochloromethane	ug/kg	57	0	57	0	--	--	--	0/57	--	--	15000	0	63000	0	NS	--	NS	NA
Bromodichloromethane	ug/kg	57	0	57	0	--	--	--	0/57	--	--	290	0	1300	0	230000	0	6200000	0
Bromoform	ug/kg	57	0	57	0	--	--	--	0/57	--	--	19000	0	86000	0	1400000	0	10000000	0
Bromomethane	ug/kg	57	0	57	0	--	--	--	0/57	--	--	680	0	3000	0	240000	0	930000	0
Carbon disulfide	ug/kg	57	0	57	0	--	--	--	0/57	--	--	77000	0	350000	0	10000000	0	10000000	0
Carbon tetrachloride	ug/kg	57	0	57	0	--	--	--	0/57	--	--	650	0	2900	0	200000	0	2800000	0
Chlorobenzene	ug/kg	57	1	56	0	11	11	11	1/57	11 - 11	SB42	28000	0	130000	0	3400000	0	10000000	0
Chloroethane	ug/kg	57	0	57	0	--	--	--	0/57	--	--	1400000	0	5700000	0	1700000	0	10000000	0
Chloroform	ug/kg	57	0	57	0	--	--	--	0/57	--	--	320	0	1400	0	460000	0	10000000	0
Chloromethane	ug/kg	57	0	57	0	--	--	--	0/57	--	--	11000	0	46000	0	10000000	0	10000000	0
cis-1,2-Dichloroethene	ug/kg	57	2	55	0	26	43	34.5	2/57	26 - 43	SB48	16000	0	230000	0	340000	0	6200000	0
cis-1,3-Dichloropropene	ug/kg	57	0	57	0	--	--	--	0/57	--	--	NS	--	NS	--	NS	--	NS	NA
Cyclohexane	ug/kg	57	0	57	0	--	--	--	0/57	--	--	650000	0	2700000	0	NS	--	NS	NA

Color - Standard Exceeded; NS - No Standard; -- Not Applicable

Table SO-3
Subsurface Soil
Summary Statistics and Criteria Comparisons
Keddy Mill Superfund Site
Windham, Maine
Page 2 of 8

Chemical	Units	Analyz ed	Detects	Non Detects	Rejects	Min Det	Max Det	Avg Det	Freq Of Det	Det Range	Max Location	RSL Soil Res. - May 2016		RSL Soil Comm./Ind. - May 2016		Maine RAGs Soil Res. - Feb 2016		Maine RAGs Soil Const. Worker - Feb 2016	
												Value	Exceedances	Value	Exceedances	Value	Exceedances	Value	Exceedances
Dibromochloromethane	ug/kg	57	0	57	0	--	--	--	0/57	--	--	8300	0	39000	0	170000	0	4300000	0
Dichlorodifluoromethane	ug/kg	57	0	57	0	--	--	--	0/57	--	--	8700	0	37000	0	10000000	0	10000000	0
Ethylbenzene	ug/kg	57	0	57	0	--	--	--	0/57	--	--	5800	0	25000	0	1300000	0	10000000	0
Isopropylbenzene	ug/kg	57	0	57	0	--	--	--	0/57	--	--	190000	0	990000	0	NS	--	NS	NA
m,p-Xylene	ug/kg	57	1	56	0	22	22	22	1/57	22 - 22	SB42	NS	--	NS	--	NS	--	NS	NA
Methyl acetate	ug/kg	57	23	34	0	3.7	110	22.3	23/57	3.7 - 110	SS-19	7800000	0	120000000	0	NS	--	NS	NA
Methyl tert-butyl ether	ug/kg	57	0	57	0	--	--	--	0/57	--	--	47000	0	210000	0	5100000	0	10000000	0
Methylcyclohexane	ug/kg	57	2	55	0	3.3	14	8.65	2/57	3.3 - 14	SB42	NS	--	NS	--	NS	--	NS	NA
Methylene chloride	ug/kg	57	13	44	0	3	330	38.2	13/57	3 - 330	SB42	35000	0	320000	0	1000000	0	10000000	0
o-Xylene	ug/kg	57	1	56	0	15	15	15	1/57	15 - 15	SB42	65000	0	280000	0	NS	--	NS	NA
Styrene	ug/kg	57	0	57	0	--	--	--	0/57	--	--	600000	0	3500000	0	10000000	0	10000000	0
Tetrachloroethene	ug/kg	57	1	56	0	8.9	8.9	8.9	1/57	8.9 - 8.9	SB60	8100	0	39000	0	1000000	0	10000000	0
Toluene	ug/kg	57	2	55	0	2.8	5.7	4.25	2/57	2.8 - 5.7	SB41	490000	0	4700000	0	10000000	0	10000000	0
trans-1,2-Dichloroethene	ug/kg	57	0	57	0	--	--	--	0/57	--	--	160000	0	2300000	0	3400000	0	10000000	0
trans-1,3-Dichloropropene	ug/kg	57	0	57	0	--	--	--	0/57	--	--	NS	--	NS	--	NS	--	NS	NA
Trichloroethene	ug/kg	57	6	51	0	8.1	350	140	6/57	8.1 - 350	SB48	410	0	1900	0	85000	0	140000	0
Trichlorofluoromethane	ug/kg	57	0	57	0	--	--	--	0/57	--	--	2300000	0	35000000	0	10000000	0	10000000	0
Vinyl chloride	ug/kg	57	0	57	0	--	--	--	0/57	--	--	59	0	1700	0	480	0	600000	0
TCLP VOC																			
1,1-Dichloroethene	mg/L	20	0	20	0	--	--	--	0/20	--	--	NS	--	NS	--	NS	--	NS	NA
1,2-Dichloroethane	mg/L	20	0	20	0	--	--	--	0/20	--	--	NS	--	NS	--	NS	--	NS	NA
1,4-Dichlorobenzene	mg/L	20	1	19	0	0.034	0.034	0.034	1/20	0.034 - 0.034	SB42	NS	--	NS	--	NS	--	NS	NA
2-Butanone	mg/L	20	0	20	0	--	--	--	0/20	--	--	NS	--	NS	--	NS	--	NS	NA
Benzene	mg/L	20	0	20	0	--	--	--	0/20	--	--	NS	--	NS	--	NS	--	NS	NA
Carbon tetrachloride	mg/L	20	0	20	0	--	--	--	0/20	--	--	NS	--	NS	--	NS	--	NS	NA
Chlorobenzene	mg/L	20	0	20	0	--	--	--	0/20	--	--	NS	--	NS	--	NS	--	NS	NA
Chloroform	mg/L	20	20	0	0	0.0065	0.049	0.0198	20/20	0.0065 - 0.049	SB44	NS	--	NS	--	NS	--	NS	NA
Tetrachloroethene	mg/L	20	0	20	0	--	--	--	0/20	--	--	NS	--	NS	--	NS	--	NS	NA
Trichloroethene	mg/L	20	19	1	0	0.0015	0.031	0.0185	19/20	0.0015 - 0.031	SB48; SB53	NS	--	NS	--	NS	--	NS	NA
Vinyl chloride	mg/L	20	0	20	0	--	--	--	0/20	--	--	NS	--	NS	--	NS	--	NS	NA
Semi-Volatile Organic Compounds																			
1,1'-Biphenyl	ug/kg	57	5	52	0	41	2500	734	5/57	41 - 2500	SB42	4700	0	20000	0	8500000	0	10000000	0
1,2,4,5-Tetrachlorobenzene	ug/kg	57	0	57	0	--	--	--	0/57	--	--	2300	0	35000	0	NS	--	NS	NA
1,4-Dioxane	ug/kg	34	0	34	0	--	--	--	0/34	--	--	5300	0	24000	0	110000	0	3300000	0

Color - Standard Exceeded; NS - No Standard; -- Not Applicable

Table SO-3
Subsurface Soil
Summary Statistics and Criteria Comparisons
Keddy Mill Superfund Site
Windham, Maine
Page 3 of 8

Chemical	Units	Analyz ed	Detects	Non Detects	Rejects	Min Det	Max Det	Avg Det	Freq Of Det	Det Range	Max Location	RSL Soil Res. - May 2016		RSL Soil Comm./Ind. - May 2016		Maine RAGs Soil Res. - Feb 2016		Maine RAGs Soil Const. Worker - Feb 2016	
												Value	Exceedances	Value	Exceedances	Value	Exceedances	Value	Exceedances
2,2'-Oxybis(1-chloropropane)	ug/kg	57	0	57	0	--	--	--	0/57	--	--	310000	0	4700000	0	NS	--	NS	NA
2,3,4,6-Tetrachlorophenol	ug/kg	57	0	57	0	--	--	--	0/57	--	--	190000	0	2500000	0	NS	--	NS	NA
2,4,5-Trichlorophenol	ug/kg	57	0	57	0	--	--	--	0/57	--	--	630000	0	8200000	0	10000000	0	10000000	0
2,4,6-Trichlorophenol	ug/kg	57	0	57	0	--	--	--	0/57	--	--	6300	0	82000	0	130000	0	240000	0
2,4-Dichlorophenol	ug/kg	57	0	57	0	--	--	--	0/57	--	--	19000	0	250000	0	400000	0	710000	0
2,4-Dimethylphenol	ug/kg	57	0	57	0	--	--	--	0/57	--	--	130000	0	1600000	0	2700000	0	10000000	0
2,4-Dinitrophenol	ug/kg	57	0	57	0	--	--	--	0/57	--	--	13000	0	160000	0	270000	0	4800000	0
2,4-Dinitrotoluene	ug/kg	57	0	57	0	--	--	--	0/57	--	--	1700	0	7400	0	35000	0	480000	0
2,6-Dinitrotoluene	ug/kg	57	0	57	0	--	--	--	0/57	--	--	360	0	1500	0	16000	0	490000	0
2-Chloronaphthalene	ug/kg	57	0	57	0	--	--	--	0/57	--	--	480000	0	6000000	0	NS	--	NS	NA
2-Chlorophenol	ug/kg	57	0	57	0	--	--	--	0/57	--	--	39000	0	580000	0	850000	0	2500000	0
2-Methylnaphthalene	ug/kg	57	31	26	0	4.5	48000	2260	31/57	4.5 - 48000	SB42	24000	1	300000	0	500000	0	600000	0
2-Methylphenol	ug/kg	57	0	57	0	--	--	--	0/57	--	--	320000	0	4100000	0	6700000	0	10000000	0
2-Nitroaniline	ug/kg	57	0	57	0	--	--	--	0/57	--	--	63000	0	800000	0	NS	--	NS	NA
2-Nitrophenol	ug/kg	57	0	57	0	--	--	--	0/57	--	--	NS	--	NS	--	NS	--	NS	NA
3,3'-Dichlorobenzidine	ug/kg	53	0	53	4	--	--	--	0/53	--	--	1200	0	5100	0	24000	0	740000	0
3-Nitroaniline	ug/kg	57	0	57	0	--	--	--	0/57	--	--	NS	--	NS	--	NS	--	NS	NA
4,6-Dinitro-2-methylphenol	ug/kg	57	0	57	0	--	--	--	0/57	--	--	510	0	6600	0	NS	--	NS	NA
4-Bromophenyl-phenylether	ug/kg	57	0	57	0	--	--	--	0/57	--	--	NS	--	NS	--	NS	--	NS	NA
4-Chloro-3-methylphenol	ug/kg	57	1	56	0	270	270	270	1/57	270 - 270	SB42	630000	0	8200000	0	NS	--	NS	NA
4-Chloroaniline	ug/kg	57	0	57	0	--	--	--	0/57	--	--	2700	0	11000	0	54000	0	120000	0
4-Chlorophenyl-phenylether	ug/kg	57	0	57	0	--	--	--	0/57	--	--	NS	--	NS	--	NS	--	NS	NA
4-Methylphenol	ug/kg	57	1	56	0	39	39	39	1/57	39 - 39	SS-14	630000	0	8200000	0	670000	0	10000000	0
4-Nitroaniline	ug/kg	57	0	57	0	--	--	--	0/57	--	--	25000	0	110000	0	NS	--	NS	NA
4-Nitrophenol	ug/kg	57	0	57	0	--	--	--	0/57	--	--	NS	--	NS	--	NS	--	NS	NA
Acenaphthene	ug/kg	57	29	28	0	4	1200	191	29/57	4 - 1200	SB42	360000	0	4500000	0	7500000	0	9800000	0
Acenaphthylene	ug/kg	57	32	25	0	3.2	1500	155	32/57	3.2 - 1500	SB41	NS	--	NS	--	7500000	0	10000000	0
Acetophenone	ug/kg	57	7	50	0	51	780	249	7/57	51 - 780	SB42	780000	0	12000000	0	NS	--	NS	NA
Anthracene	ug/kg	57	40	17	0	4.3	5900	526	40/57	4.3 - 5900	SB42	1800000	0	23000000	0	10000000	0	3800000	0
Atrazine	ug/kg	57	0	57	0	--	--	--	0/57	--	--	2400	0	10000	0	47000	0	710000	0
Benzaldehyde	ug/kg	57	1	56	0	150	150	150	1/57	150 - 150	SS-06	170000	0	820000	0	NS	--	NS	NA
Benzo(a)anthracene	ug/kg	56	45	11	1	3.5	3700	637	45/56	3.5 - 3700	SS-14	160	28	2900	1	2600	2	430000	0
Benzo(a)pyrene	ug/kg	55	42	13	2	6.6	3600	585	42/55	6.6 - 3600	SS-14	16	40	290	25	260	25	43000	0

Color - Standard Exceeded; NS - No Standard; -- Not Applicable

Nobis Engineering, Inc.

**Table SO-3
Subsurface Soil
Summary Statistics and Criteria Comparisons
Keddy Mill Superfund Site
Windham, Maine
Page 4 of 8**

Chemical	Units	Analyz ed	Detects	Non Detects	Rejects	Min Det	Max Det	Avg Det	Freq Of Det	Det Range	Max Location	RSL Soil Res. - May 2016		RSL Soil Comm./Ind. - May 2016		Maine RAGs Soil Res. - Feb 2016		Maine RAGs Soil Const. Worker - Feb 2016	
												Value	Exceedances	Value	Exceedances	Value	Exceedances	Value	Exceedances
Benzo(b)fluoranthene	ug/kg	55	41	14	2	3.5	4700	591	41/55	3.5 - 4700	SS-14	160	28	2900	1	2600	1	430000	0
Benzo(g,h,i)perylene	ug/kg	55	39	16	2	17	1800	373	39/55	17 - 1800	SS-14	NS	--	NS	--	3700000	0	10000000	0
Benzo(k)fluoranthene	ug/kg	55	40	15	2	4.7	1500	391	40/55	4.7 - 1500	SS-14	1600	0	29000	0	26000	0	4300000	0
Bis(2-chloroethoxy)methane	ug/kg	57	0	57	0	--	--	--	0/57	--	--	19000	0	250000	0	NS	--	NS	NA
Bis(2-chloroethyl)ether	ug/kg	57	0	57	0	--	--	--	0/57	--	--	230	0	1000	0	9800	0	250000	0
Bis(2-ethylhexyl)phthalate	ug/kg	53	4	49	4	61	310	130	4/53	61 - 310	SB53	39000	0	160000	0	770000	0	10000000	0
Butylbenzylphthalate	ug/kg	53	0	53	4	--	--	--	0/53	--	--	290000	0	1200000	0	5700000	0	10000000	0
Caprolactam	ug/kg	57	0	57	0	--	--	--	0/57	--	--	3100000	0	40000000	0	NS	--	NS	NA
Carbazole	ug/kg	57	12	45	0	45	800	231	12/57	45 - 800	SS-14	NS	--	NS	--	540000	0	10000000	0
Chrysene	ug/kg	57	46	11	0	3.5	5800	823	46/57	3.5 - 5800	SB41	16000	0	290000	0	260000	0	10000000	0
Dibenz(a,h)anthracene	ug/kg	55	33	22	2	10	940	190	33/55	10 - 940	SS-14	16	30	290	5	260	8	43000	0
Dibenzofuran	ug/kg	57	12	45	0	39	1900	389	12/57	39 - 1900	SB42	7300	0	100000	0	130000	0	950000	0
Diethylphthalate	ug/kg	57	2	55	0	43	71	57	2/57	43 - 71	SS-16	5100000	0	66000000	0	10000000	0	10000000	0
Dimethylphthalate	ug/kg	57	0	57	0	--	--	--	0/57	--	--	NS	--	NS	--	NS	--	NS	NA
Di-N-Butylphthalate	ug/kg	57	0	57	0	--	--	--	0/57	--	--	630000	0	8200000	0	10000000	0	10000000	0
Di-N-Octyl Phthalate	ug/kg	53	0	53	4	--	--	--	0/53	--	--	63000	0	820000	0	1600000	0	2900000	0
Fluoranthene	ug/kg	57	44	13	0	3.3	8300	1230	44/57	3.3 - 8300	SB41	240000	0	3000000	0	5000000	0	10000000	0
Fluorene	ug/kg	57	30	27	0	4.7	6300	465	30/57	4.7 - 6300	SB42	240000	0	3000000	0	5000000	0	10000000	0
Hexachlorobenzene	ug/kg	57	0	57	0	--	--	--	0/57	--	--	210	0	960	0	6800	0	190000	0
Hexachlorobutadiene	ug/kg	57	0	57	0	--	--	--	0/57	--	--	1200	0	5300	0	130000	0	240000	0
Hexachlorocyclopentadiene	ug/kg	57	0	57	0	--	--	--	0/57	--	--	180	0	750	0	NS	--	NS	NA
Hexachloroethane	ug/kg	57	0	57	0	--	--	--	0/57	--	--	1800	0	8000	0	93000	0	2400000	0
Indeno(1,2,3-cd)pyrene	ug/kg	55	39	16	2	19	2200	356	39/55	19 - 2200	SS-14	160	25	2900	0	2600	0	430000	0
Isophorone	ug/kg	57	0	57	0	--	--	--	0/57	--	--	570000	0	2400000	0	NS	--	NS	NA
Naphthalene	ug/kg	57	32	25	0	3.8	10000	481	32/57	3.8 - 10000	SB42	3800	1	17000	0	2500000	0	10000000	0
Nitrobenzene	ug/kg	57	0	57	0	--	--	--	0/57	--	--	5100	0	22000	0	NS	--	NS	NA
N-Nitroso-di-n-propylamine (NDPA)	ug/kg	57	0	57	0	--	--	--	0/57	--	--	78	0	330	0	NS	--	NS	NA
N-Nitrosodiphenylamine	ug/kg	57	0	57	0	--	--	--	0/57	--	--	110000	0	470000	0	NS	--	NS	NA
Pentachlorophenol	ug/kg	57	0	57	0	--	--	--	0/57	--	--	1000	0	4000	0	20000	0	620000	0
Phenanthrene	ug/kg	57	45	12	0	4.7	22000	1620	45/57	4.7 - 22000	SB42	NS	--	NS	--	3700000	0	8900000	0

Color - Standard Exceeded; NS - No Standard; -- Not Applicable

Nobis Engineering, Inc.

Table SO-3
Subsurface Soil
Summary Statistics and Criteria Comparisons
Keddy Mill Superfund Site
Windham, Maine
Page 5 of 8

Chemical	Units	Analyz ed	Detects	Non Detects	Rejects	Min Det	Max Det	Avg Det	Freq Of Det	Det Range	Max Location	RSL Soil Res. - May 2016		RSL Soil Comm./Ind. - May 2016		Maine RAGs Soil Res. - Feb 2016		Maine RAGs Soil Const. Worker - Feb 2016	
												Value	Exceedances	Value	Exceedances	Value	Exceedances	Value	Exceedances
Phenol	ug/kg	57	0	57	0	--	--	--	0/57	--	--	1900000	0	25000000	0	10000000	0	10000000	0
Pyrene	ug/kg	57	46	11	0	3.7	16000	1710	46/57	3.7 - 16000	SB42	180000	0	2300000	0	3700000	0	10000000	0
PESTICIDES/PCBs																			
4,4'-DDD	ug/kg	34	0	34	0	--	--	--	0/34	--	--	2300	0	9600	0	45000	0	1400000	0
4,4'-DDE	ug/kg	34	1	33	0	11	11	11	1/34	11 - 11	SB59	2000	0	9300	0	32000	0	980000	0
4,4'-DDT	ug/kg	34	0	34	0	--	--	--	0/34	--	--	1900	0	8500	0	38000	0	140000	0
Aldrin	ug/kg	34	0	34	0	--	--	--	0/34	--	--	39	0	180	0	640	0	9500	0
alpha-BHC	ug/kg	34	0	34	0	--	--	--	0/34	--	--	86	0	360	0	1700	0	53000	0
Aroclor 1016	ug/kg	75	0	75	0	--	--	--	0/75	--	--	410	0	5100	0	4900	0	46000	0
Aroclor 1221	ug/kg	75	0	75	0	--	--	--	0/75	--	--	200	0	830	0	NS	--	NS	NA
Aroclor 1232	ug/kg	75	0	75	0	--	--	--	0/75	--	--	170	0	720	0	NS	--	NS	NA
Aroclor 1242	ug/kg	75	1	74	0	110000	110000	110000	1/75	110000 - 110000	SS-09	230	1	950	1	NS	--	NS	NA
Aroclor 1248	ug/kg	75	7	68	0	110	5800	2020	7/75	110 - 5800	SB10	230	5	950	4	NS	--	NS	NA
Aroclor 1254	ug/kg	75	30	45	0	24	5100	826	30/75	24 - 5100	SB09	120	18	970	7	NS	--	NS	NA
Aroclor 1260	ug/kg	75	1	74	0	120	120	120	1/75	120 - 120	SB20	240	0	990	0	NS	--	NS	NA
Aroclor 1262	ug/kg	75	0	75	0	--	--	--	0/75	--	--	NS	--	NS	--	NS	--	NS	NA
Aroclor 1268	ug/kg	75	0	75	0	--	--	--	0/75	--	--	NS	--	NS	--	NS	--	NS	NA
Aroclor, Total	ug/kg	75	31	44	0	24	110000	4800	31/75	24 - 110000	SS-09	230	15	940	8	2400	5	6500	3
beta-BHC	ug/kg	34	0	34	0	--	--	--	0/34	--	--	300	0	1300	0	6000	0	140000	0
cis-Chlordane	ug/kg	34	0	34	0	--	--	--	0/34	--	--	NS	--	NS	--	NS	--	NS	NA
delta-BHC	ug/kg	34	0	34	0	--	--	--	0/34	--	--	NS	--	NS	--	NS	--	NS	NA
Dieldrin	ug/kg	34	0	34	0	--	--	--	0/34	--	--	34	0	140	0	680	0	21000	0
Endosulfan I	ug/kg	34	0	34	0	--	--	--	0/34	--	--	NS	--	NS	--	800000	0	1400000	0
Endosulfan II	ug/kg	34	0	34	0	--	--	--	0/34	--	--	NS	--	NS	--	800000	0	1400000	0
Endosulfan Sulfate	ug/kg	34	0	34	0	--	--	--	0/34	--	--	NS	--	NS	--	NS	--	NS	NA
Endrin	ug/kg	34	1	33	0	3.6	3.6	3.6	1/34	3.6 - 3.6	SB59	1900	0	25000	0	40000	0	480000	0
Endrin Aldehyde	ug/kg	34	0	34	0	--	--	--	0/34	--	--	NS	--	NS	--	NS	--	NS	NA
Endrin Ketone	ug/kg	34	0	34	0	--	--	--	0/34	--	--	NS	--	NS	--	NS	--	NS	NA
gamma-BHC (Lindane)	ug/kg	34	0	34	0	--	--	--	0/34	--	--	570	0	2500	0	610	0	2800	0
Heptachlor	ug/kg	34	0	34	0	--	--	--	0/34	--	--	130	0	630	0	1300	0	24000	0
Heptachlor Epoxide	ug/kg	34	0	34	0	--	--	--	0/34	--	--	70	0	330	0	1200	0	3100	0
Methoxychlor	ug/kg	34	0	34	0	--	--	--	0/34	--	--	32000	0	410000	0	670000	0	1200000	0
Toxaphene	ug/kg	34	0	34	0	--	--	--	0/34	--	--	490	0	2100	0	NS	--	NS	NA
trans-Chlordane	ug/kg	34	0	34	0	--	--	--	0/34	--	--	NS	--	NS	--	NS	--	NS	NA

Color - Standard Exceeded; NS - No Standard; -- Not Applicable

Nobis Engineering, Inc.

**Table SO-3
Subsurface Soil
Summary Statistics and Criteria Comparisons
Keddy Mill Superfund Site
Windham, Maine
Page 6 of 8**

Chemical	Units	Analyz ed	Detects	Non Detects	Rejects	Min Det	Max Det	Avg Det	Freq Of Det	Det Range	Max Location	RSL Soil Res. - May 2016		RSL Soil Comm./Ind. - May 2016		Maine RAGs Soil Res. - Feb 2016		Maine RAGs Soil Const. Worker - Feb 2016	
												Value	Exceedances	Value	Exceedances	Value	Exceedances	Value	Exceedances
PCB CONGENERS AND HOMOLOGUES																			
PCB-105	ng/kg	64	54	10	0	5.5	3600000	120000	54/64	5.5 - 3600000	SB60	120000	7	490000	2	NS	--	NS	NA
PCB-114	ng/kg	64	31	33	0	1.4	260000	14600	31/64	1.4 - 260000	SB60	120000	1	500000	0	NS	--	NS	NA
PCB-118	ng/kg	64	59	5	0	14	4800000	176000	59/64	14 - 4800000	SB60	120000	9	490000	3	NS	--	NS	NA
PCB-123	ng/kg	53	32	21	11	2.5	130000	8350	32/53	2.5 - 130000	SB60	120000	1	490000	0	NS	--	NS	NA
PCB-126	ng/kg	64	22	42	0	0.84	39000	3090	22/64	0.84 - 39000	SB60	36	12	150	9	NS	--	NS	NA
PCB-156/157	ng/kg	64	41	23	0	4.1	140000	18300	41/64	4.1 - 140000	SB09; SB60	NS	--	NS	--	NS	--	NS	NA
PCB-167	ng/kg	64	39	25	0	5.7	42000	6330	39/64	5.7 - 42000	SB58	120000	0	510000	0	NS	--	NS	NA
PCB-169	ng/kg	64	8	56	0	6	68	22	8/64	6 - 68	SB60	120	0	510	0	NS	--	NS	NA
PCB-189	ng/kg	64	26	38	0	2.5	4600	981	26/64	2.5 - 4600	SB60	130000	0	520000	0	NS	--	NS	NA
PCB-209 (Decachlorobiphenyl)	ng/kg	1	1	0	0	57	57	57	1/1	57 - 57	SB58	NS	--	NS	--	NS	--	NS	NA
PCB-77	ng/kg	64	39	25	0	3.8	2000000	86900	39/64	3.8 - 2000000	SB60	38000	5	160000	2	NS	--	NS	NA
PCB-81	ng/kg	64	18	46	0	1.7	100000	9590	18/64	1.7 - 100000	SB60	12000	2	48000	2	NS	--	NS	NA
PCBC Total TEQ	ng/kg	64	63	1	0	0	4400	122	63/64	0 - 4400	SB60	230000	0	940000	0	2400000	0	6500000	0
Total DiCB	ng/kg	34	24	10	0	94	5100000	297000	24/34	94 - 5100000	SB58	NS	--	NS	--	NS	--	NS	NA
Total HpCB	ng/kg	34	22	12	0	84	760000	79700	22/34	84 - 760000	SB60	NS	--	NS	--	NS	--	NS	NA
Total HxCB	ng/kg	34	26	8	0	46	3900000	361000	26/34	46 - 3900000	SB60	NS	--	NS	--	NS	--	NS	NA
Total MoCB	ng/kg	34	17	17	0	35	42000	6760	17/34	35 - 42000	SB42	NS	--	NS	--	NS	--	NS	NA
Total NoCB	ng/kg	34	18	16	0	32	82000	7200	18/34	32 - 82000	SB60	NS	--	NS	--	NS	--	NS	NA
Total OcCB	ng/kg	34	16	18	0	24	240000	31600	16/34	24 - 240000	SB60	NS	--	NS	--	NS	--	NS	NA
Total PCB Homologues	ng/kg	34	33	1	0	440	350000000	17000000	33/34	440 - 350000000	SB60	230000	7	940000	4	2400000	4	6500000	3
Total PeCB	ng/kg	34	31	3	0	24	44000000	2270000	31/34	24 - 44000000	SB60	NS	--	NS	--	NS	--	NS	NA
Total TeCB	ng/kg	34	32	2	0	20	200000000	9680000	32/34	20 - 200000000	SB60	NS	--	NS	--	NS	--	NS	NA
Total TrCB	ng/kg	34	27	7	0	98	97000000	5880000	27/34	98 - 97000000	SB60	NS	--	NS	--	NS	--	NS	NA
METALS AND INORGANICS																			

Color - Standard Exceeded; NS - No Standard; -- Not Applicable

Nobis Engineering, Inc.

**Table SO-3
Subsurface Soil
Summary Statistics and Criteria Comparisons
Keddy Mill Superfund Site
Windham, Maine
Page 7 of 8**

Chemical	Units	Analyz ed	Detects	Non Detects	Rejects	Min Det	Max Det	Avg Det	Freq Of Det	Det Range	Max Location	RSL Soil Res. - May 2016		RSL Soil Comm./Ind. - May 2016		Maine RAGs Soil Res. - Feb 2016		Maine RAGs Soil Const. Worker - Feb 2016	
												Value	Exceedances	Value	Exceedances	Value	Exceedances	Value	Exceedances
Aluminum	mg/kg	57	57	0	0	1310	27500	11200	57/57	1310 - 27500	SB43; SB45	7700	36	110000	0	170000	0	310000	0
Antimony	mg/kg	57	21	36	0	1.7	622	34.8	21/57	1.7 - 622	SB51	3.1	12	47	1	68	1	120	1
Arsenic	mg/kg	57	57	0	0	2.8	92.6	17.8	57/57	2.8 - 92.6	SS-22	0.68	57	3	56	1.4	57	42	3
Barium	mg/kg	57	57	0	0	25.8	4590	198	57/57	25.8 - 4590	SB51	1500	1	22000	0	10000	0	10000	0
Beryllium	mg/kg	57	34	23	0	0.2	1.7	0.73	34/57	0.2 - 1.7	SB43; SB59	16	0	230	0	340	0	620	0
Cadmium	mg/kg	57	52	5	0	0.066	9.7	1.06	52/57	0.066 - 9.7	SB58	7.1	2	98	0	11	0	19	0
Calcium	mg/kg	57	57	0	0	818	57800	5590	57/57	818 - 57800	SB42	NS	--	NS	--	NS	--	NS	NA
Chromium	mg/kg	57	57	0	0	8.8	443	54.3	57/57	8.8 - 443	SS-13	12000	0	180000	0	NS	--	NS	NA
Cobalt	mg/kg	57	57	0	0	2.7	31.5	9.52	57/57	2.7 - 31.5	SB58	2.3	57	35	0	51	0	920	0
Copper	mg/kg	57	57	0	0	6.6	1680	102	57/57	6.6 - 1680	SB51	310	3	4700	0	2400	0	4300	0
Cyanide	mg/kg	57	9	48	0	0.049	6.5	0.906	9/57	0.049 - 6.5	SB51	2.3	1	15	0	100	0	1900	0
Iron	mg/kg	57	57	0	0	6940	243000	33000	57/57	6940 - 243000	SB58	5500	57	82000	5	120000	3	220000	1
Lead	mg/kg	57	57	0	0	4.6	2920	184	57/57	4.6 - 2920	SB51	400	5	800	3	340	6	950	2
Magnesium	mg/kg	57	57	0	0	384	37900	6070	57/57	384 - 37900	SB58	NS	--	NS	--	NS	--	NS	NA
Manganese	mg/kg	57	57	0	0	53.7	2370	393	57/57	53.7 - 2370	SB58	180	41	2600	0	4100	0	7400	0
Mercury	mg/kg	57	47	10	0	0.011	17.2	0.809	47/57	0.011 - 17.2	SB51	1.1	5	4.6	2	51	0	930	0
Nickel	mg/kg	57	57	0	0	7.8	1050	58	57/57	7.8 - 1050	SS-19	150	2	2200	0	510	1	930	1
Potassium	mg/kg	57	56	1	0	42.8	15100	3660	56/57	42.8 - 15100	SB54	NS	--	NS	--	NS	--	NS	NA
Selenium	mg/kg	57	22	35	0	0.43	4.4	1.63	22/57	0.43 - 4.4	SS-01	39	0	580	0	850	0	1500	0
Silver	mg/kg	57	4	53	0	0.55	8.2	2.85	4/57	0.55 - 8.2	SB51	39	0	580	0	850	0	1500	0
Sodium	mg/kg	57	34	23	0	94.2	2300	333	34/57	94.2 - 2300	SB42	NS	--	NS	--	NS	--	NS	NA
Thallium	mg/kg	57	7	50	0	0.42	1.1	0.63	7/57	0.42 - 1.1	SS-22	0.078	7	1.2	0	NS	--	NS	NA
Vanadium	mg/kg	57	57	0	0	10.5	93.2	39.3	57/57	10.5 - 93.2	SS-13	39	23	580	0	1200	0	2200	0
Zinc	mg/kg	57	57	0	0	15.8	6840	236	57/57	15.8 - 6840	SB51	2300	1	35000	0	10000	0	10000	0

Color - Standard Exceeded; NS - No Standard; -- Not Applicable

Nobis Engineering, Inc.

Table SO-3
Subsurface Soil
Summary Statistics and Criteria Comparisons
Keddy Mill Superfund Site
Windham, Maine
Page 8 of 8

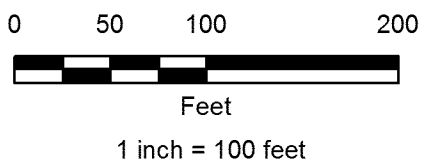
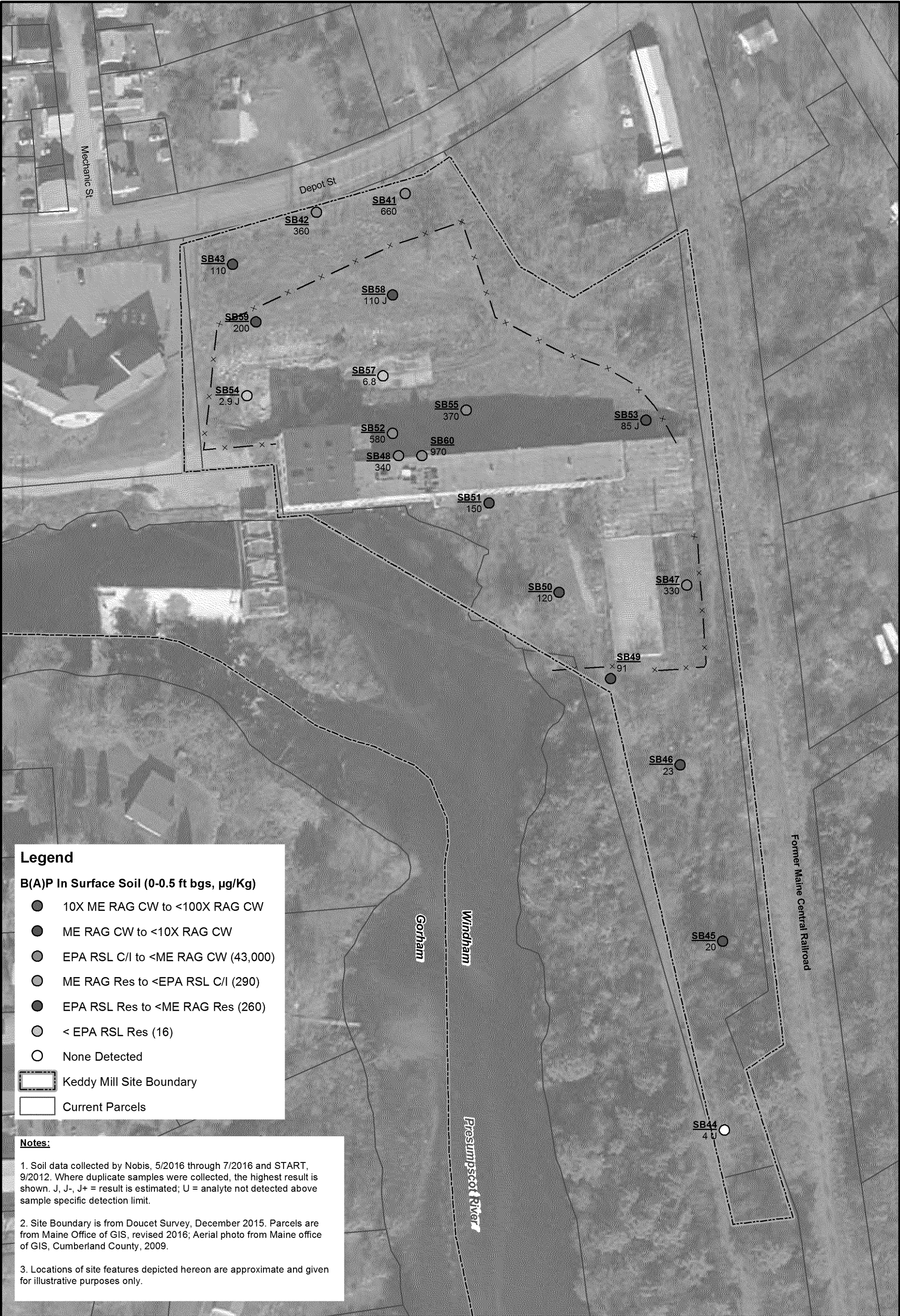
Chemical	Units	Analyz ed	Detects	Non Detects	Rejects	Min Det	Max Det	Avg Det	Freq Of Det	Det Range	Max Location	RSL Soil Res. - May 2016		RSL Soil Comm./Ind. - May 2016		Maine RAGs Soil Res. - Feb 2016		Maine RAGs Soil Const. Worker - Feb 2016	
												Value	Exceedances	Value	Exceedances	Value	Exceedances	Value	Exceedances
Per- and Polyfluoroalkyl Substances																			
Perfluorobutane Sulfonate	ng/g	24	0	24	0	--	--	--	0/24	--	--	NS	--	NS	--	NS	--	NS	NA
Perfluorobutanoic Acid	ng/g	24	0	24	0	--	--	--	0/24	--	--	NS	--	NS	--	NS	--	NS	NA
Perfluorodecane Sulfonate	ng/g	24	0	24	0	--	--	--	0/24	--	--	NS	--	NS	--	NS	--	NS	NA
Perfluorodecanoic Acid	ng/g	24	0	24	0	--	--	--	0/24	--	--	NS	--	NS	--	NS	--	NS	NA
Perfluorododecanoic Acid	ng/g	24	0	24	0	--	--	--	0/24	--	--	NS	--	NS	--	NS	--	NS	NA
Perfluoroheptane sulfonate	ng/g	24	0	24	0	--	--	--	0/24	--	--	NS	--	NS	--	NS	--	NS	NA
Perfluoroheptanoic acid (PFHpA)	ng/g	24	0	24	0	--	--	--	0/24	--	--	NS	--	NS	--	NS	--	NS	NA
Perfluorohexane Sulfonate	ng/g	24	0	24	0	--	--	--	0/24	--	--	NS	--	NS	--	NS	--	NS	NA
Perfluorohexanoic Acid (PFHxA)	ng/g	24	3	21	0	1.5	1.9	1.7	3/24	1.5 - 1.9	SB54	NS	--	NS	--	NS	--	NS	NA
Perfluorononanoic acid (PFNA)	ng/g	24	0	24	0	--	--	--	0/24	--	--	NS	--	NS	--	NS	--	NS	NA
Perfluoro-n-tetradecanoic acid	ng/g	24	0	24	0	--	--	--	0/24	--	--	NS	--	NS	--	NS	--	NS	NA
Perfluoro-n-tridecanoic acid	ng/g	24	0	24	0	--	--	--	0/24	--	--	NS	--	NS	--	NS	--	NS	NA
Perfluorooctane Sulfonate (PFOS)	ng/g	24	1	23	0	1.5	1.5	1.5	1/24	1.5 - 1.5	SB57	NS	--	NS	--	11000	0	19000	0
Perfluorooctanoic acid (PFOA)	ng/g	24	0	24	0	--	--	--	0/24	--	--	NS	--	NS	--	800	0	1400	0
Perfluoropentanoic Acid	ng/g	24	1	23	0	1.1	1.1	1.1	1/24	1.1 - 1.1	SB42	NS	--	NS	--	NS	--	NS	NA
Perfluoroundecanoic Acid	ng/g	24	0	24	0	--	--	--	0/24	--	--	NS	--	NS	--	NS	--	NS	NA

Color - Standard Exceeded; NS - No Standard; -- Not Applicable

Nobis Engineering, Inc.

FIGURES

Path: R:\800000 Task Orders\80107 Keddy Mill RVT\Technical Data\GIS\Maps Figures\RT Report\Soils



Nobis
Engineering a Sustainable Future
Nobis Engineering, Inc.
585 Middlesex Street
Lowell, MA 01851
T(978) 683-0891
www.nobiseng.com
Client-Focused, Employee-Owned

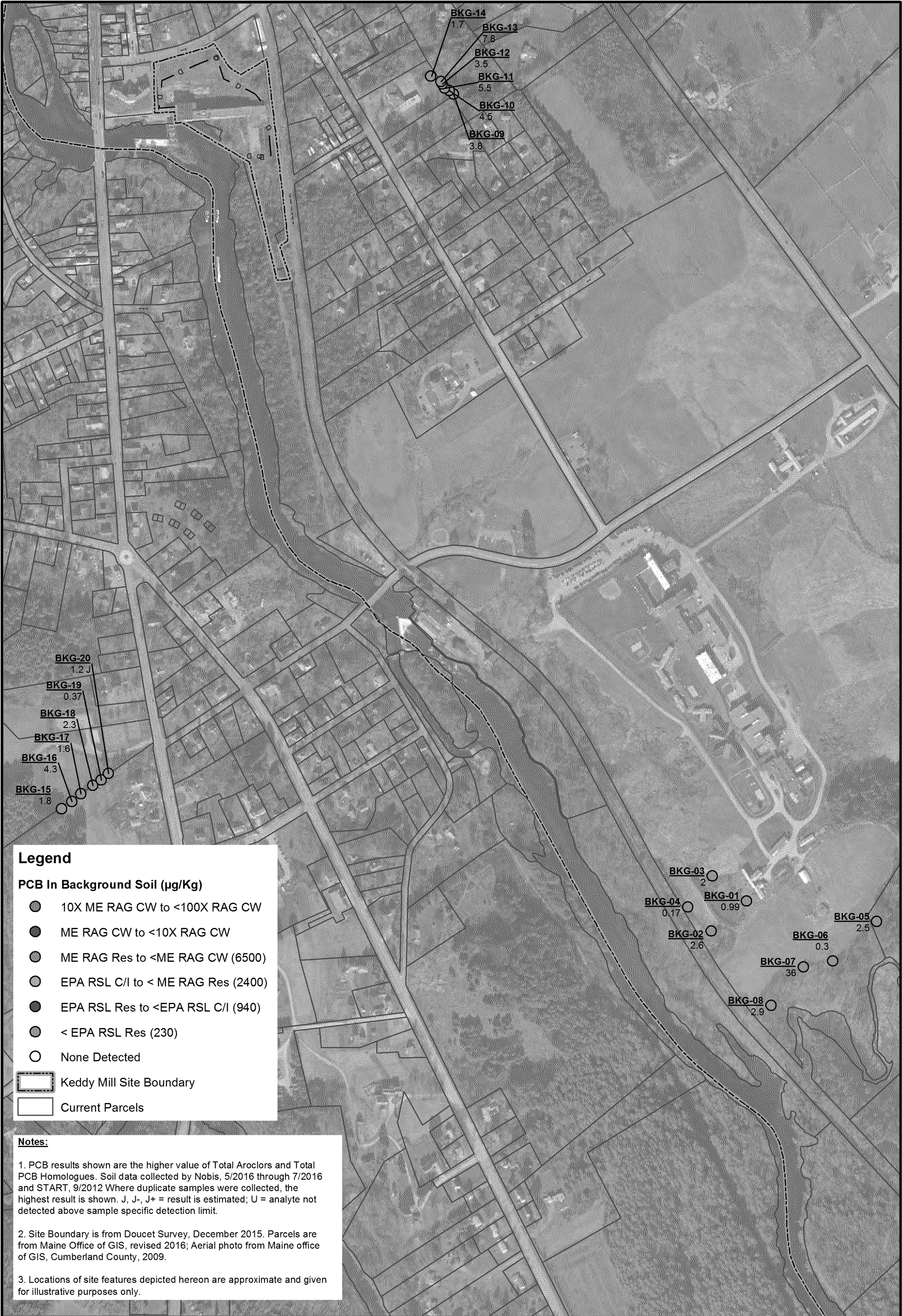
FIGURE 1

**BENZO(A)PYRENE IN SURFACE SOIL
KEDDY MILL - REMEDIAL INVESTIGATION
7 DEPOT STREET
WINDHAM, MAINE**

PREPARED BY: JH
PROJECT NO. 80107

CHECKED BY: LC
DATE: FEBRUARY 2016

Path: R:\800000 Task Orders\80107 Keddy Mill RVT\Technical Data\GIS\Maps Figures\RI Report\Soils\Figure C Keddy Mill Background.mxd Date Printed: 2/20/2017



0 225 450 900
Feet
1 inch = 450 feet

3

Nobis
Engineering a Sustainable Future
Nobis Engineering, Inc.
585 Middlesex Street
Lowell, MA 01851
T(978) 683-0891
www.nobiseng.com
Client-Focused, Employee-Owned

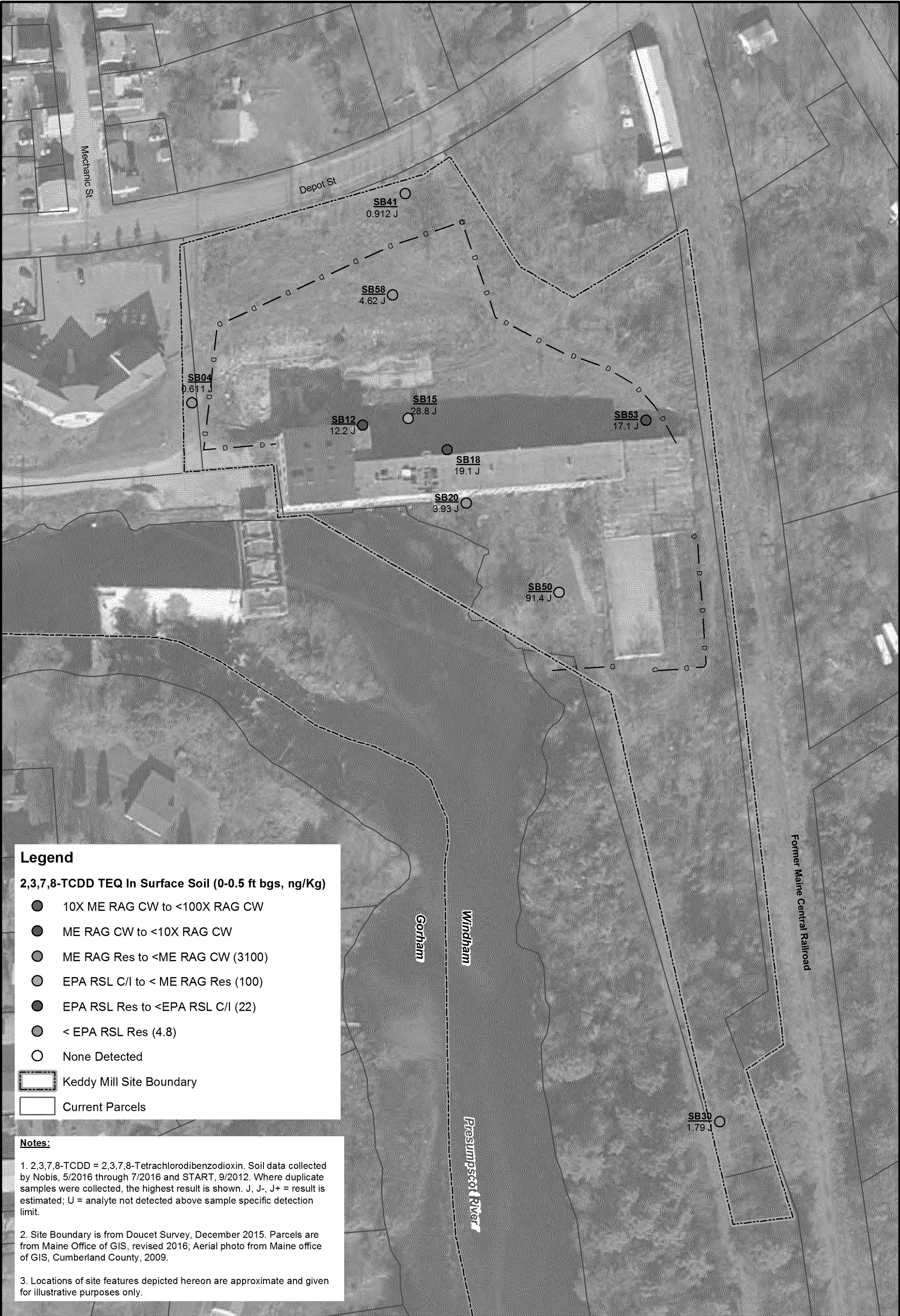
FIGURE 5

PCB IN BACKGROUND SOIL
KEDDY MILL - REMEDIAL INVESTIGATION
7 DEPOT STREET
WINDHAM, MAINE

PREPARED BY: JH
PROJECT NO. 80107

CHECKED BY: LC
DATE: FEBRUARY 2016

Path: R:\800000 Task Orders\80107 Keddy Mill RVT\Technical Data\GIS\Maps Figures\RT Report\Soils



Legend

2,3,7,8-TCDD TEQ In Surface Soil (0-0.5 ft bgs, ng/Kg)

10X ME RAG CW to <100X RAG CW

ME RAG CW to <10X RAG CW

ME RAG Res to <ME RAG CW (3100)

EPA RSL C/I to < ME RAG Res (100)

EPA RSL Res to <EPA RSL C/I (22)

< EPA RSL Res (4.8)

None Detected

Keddy Mill Site Boundary

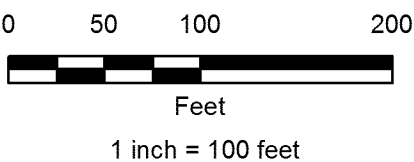
Current Parcels

Notes:

1. 2,3,7,8-TCDD = 2,3,7,8-Tetrachlorodibenzodioxin. Soil data collected by Nobis, 5/2016 through 7/2016 and START, 9/2012. Where duplicate samples were collected, the highest result is shown. J, J-, J+ = result is estimated; U = analyte not detected above sample specific detection limit.

2. Site Boundary is from Doucet Survey, December 2015. Parcels are from Maine Office of GIS, revised 2016; Aerial photo from Maine office of GIS, Cumberland County, 2009.

3. Locations of site features depicted hereon are approximate and given for illustrative purposes only.



3

Nobis

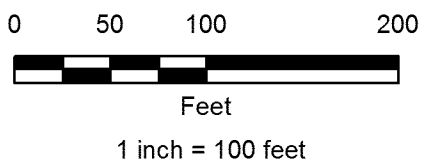
Engineering a Sustainable Future

Nobis Engineering, Inc.
585 Middlesex Street
Lowell, MA 01851
T(978) 683-0891
www.nobiseng.com

Client-Focused, Employee-Owned

FIGURE 6	
2,3,7,8-TCDD TEQ IN SURFACE SOIL KEDDY MILL - REMEDIAL INVESTIGATION 7 DEPOT STREET WINDHAM, MAINE	
PREPARED BY: JH	CHECKED BY: LC
PROJECT NO. 80107	DATE: FEBRUARY 2016

Path: R:\800000 Task Orders\80107 Keddy Mill RVT\Technical Data\GIS\Maps Figures\RI Report\Soils



3

Nobis
Engineering a Sustainable Future
Nobis Engineering, Inc.
585 Middlesex Street
Lowell, MA 01851
T(978) 683-0891
www.nobiseng.com
Client-Focused, Employee-Owned

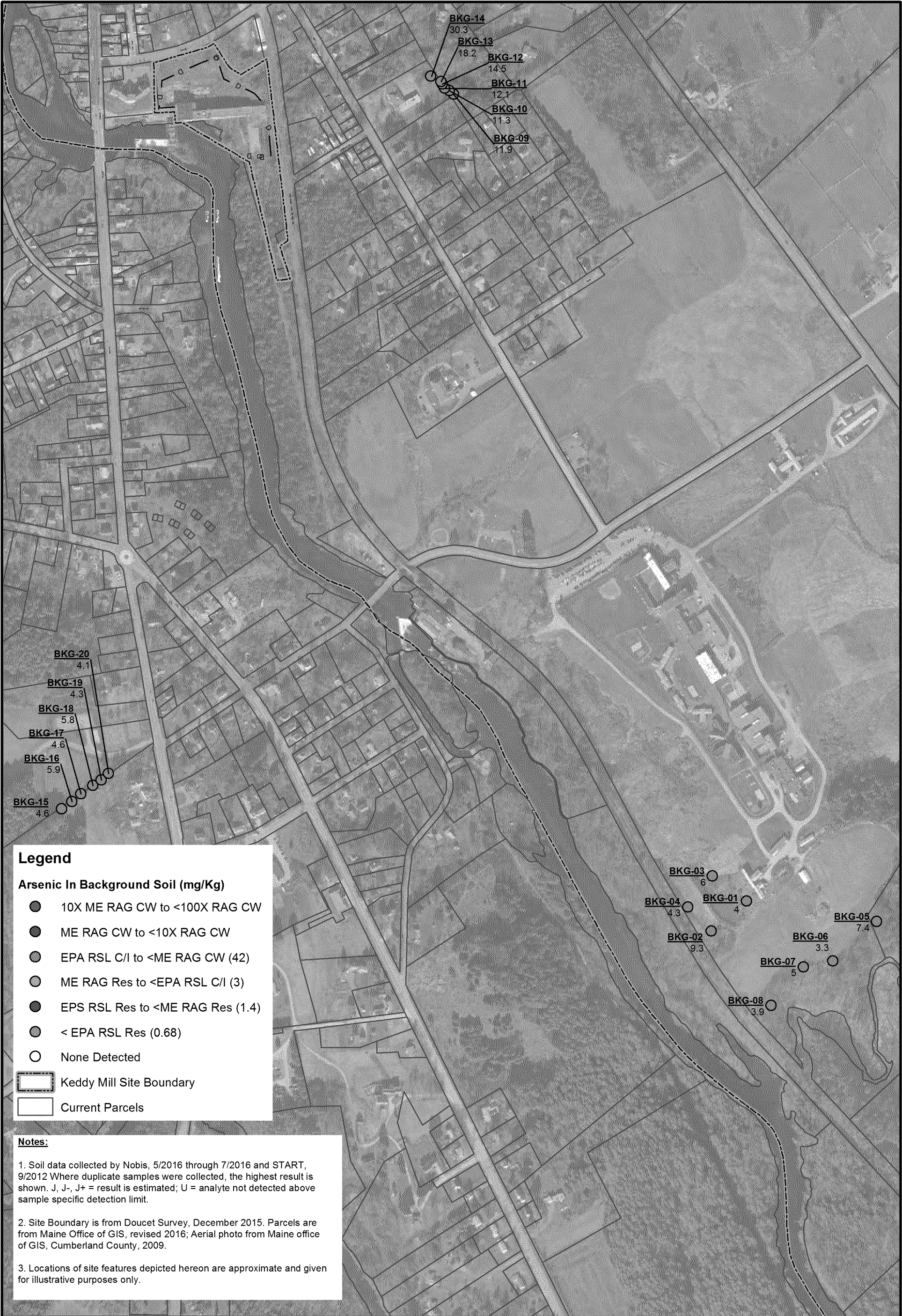
FIGURE 8

ARSENIC IN SUBSURFACE SOIL
KEDDY MILL - REMEDIAL INVESTIGATION
7 DEPOT STREET
WINDHAM, MAINE

PREPARED BY: JH
PROJECT NO. 80107

CHECKED BY: LC
DATE: FEBRUARY 2016

Path: R:\800000 Task Orders\80107 Keddy Mill RVT\Technical Data\GIS\Maps_Figures\RI Report\Soils\Figure C_Keddy Mill Background.mxd Date Printed: 2/20/2017



0 225 450 900

Feet

1 inch = 450 feet

3

Nobis
Engineering a Sustainable Future
Nobis Engineering, Inc.
585 Middlesex Street
Lowell, MA 01851
T(978) 683-0891
www.nobiseng.com
Client-Focused, Employee-Owned

FIGURE 9

ARSENIC IN BACKGROUND SOIL
KEDDY MILL - REMEDIAL INVESTIGATION
7 DEPOT STREET
WINDHAM, MAINE

PREPARED BY: JH
PROJECT NO. 80107

CHECKED BY: LC
DATE: FEBRUARY 2016